CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, April 22, 1909.

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CONSTRUCTION NEWS.

Plans and Specifications on File.

(* *denotes that this work is advertised in Engineering News.*)

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
4-24	Roof (Buildings), New York..(S.)	4- 1
4-24	Hospital, Bremerton, Wash..(S.)	3-25
4-24*	Bridge, Cedar Rapids, Iowa. (P. & S.)	4- 8
4-26	Buildings, North Chicago, Ill.(S.)	3-25
4-26*	Pass, Wheeling, W. Va..(P.& S.)	4- 1
4-26	Surfacing, Boston, Mass. (P. & S.)	4-22
4-27*	Rebuilding bridge, Newburyport, Mass. ....(P. & S.)	4- 8
5- 5*	Dredging, New London, Conn.(S.)	4- 8
5- 7*	Dredging, Wilmington, Del.. ....(P. & S.)	4-15
5- 8	Seawall, dredging, Norfolk, Va. ....(S.)	4- 8
5-10	Dredging, Philadelphia, Pa.(S.)..	4-22
5-15	Dredging, Vallejo, Cal.......(S.)	4-22
5-15	Hospital bldgs., Wash., D. C.(S.)	4-15
5-22	Dry dock, Hawaii..........(S.)	3-25
5-26*	Lock, Vicksburg, Miss......(S.)	4- 1
6- 1*	Pipe and specials, Philippines. ....(P. & S.)	3-25

List of Contracts Pending.

LIGHT, HEAT AND POWER PLANTS.

4-23*	Conduit, etc., Newbern, N. C....	4- 1
4-24*	Light plant, Ft. D. A. Russell, Wyo.	4- 1
4-26*	Engines, generators, etc., Boston, Mass.....................	4- 1
4-26*	Power plant, Wilkes-Barre, Pa..	3-25
4-26	Light plant, Minco, Okla........	4-22
4-27	Elec. supplies, Wash., D. C.....	4-22
4-28	Chimney, etc., Saskatoon, Sask..	4-22
4-30	Cable, Toronto, Ont............	4- 8
4-30*	Gas well, Medicine Hat, Alta....	4- 8
4-30*	Lamp standards, etc., Wash., D.C.	4- 8
5- 3	Elec. equip., New York	4-22
5- 4	Power plant, etc., Greenville, N.C.	4-15
5- 5	Steam mains, Danville, Ill.......	4- 1
5- 8	Wiring, Ft. Bayard, N. Mex......	4-15
5-14	Elec. equip., Rushville, Ind....	4-22
6- 1	Lighting, Bridgeport, Ohio......	4-22

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4-24	Bridge, Souris, Man............	4-22
4-24	Bridge work, Vancouver, B. C...	4-22
4-24	Bridges, Woodruff, S. C.........	4-22
4-24	Bridge, Guelph, Ont............	4-22
4-24	Bridges, etc., Richmond, Ind....	4-15
4-24*	Bridge, Cedar Rapids, Iowa.....	4- 8
4-26*	Bridge, Norfolk, Va.	4-15
4-27	Rebuilding bridge, Newburyport, Mass......................	4- 8
4-28	Bridge metal work, Chicago, Ill.	4-22
4-30	Bridge, Superior, Wis...........	4-22
4-30	Bridge, Bangor, Pa.............	4-22
4-30	Culvert, Cincinnati, Ohio.......	4-22
5- 1	Bridge, Toledo, Ore.	4-15
5- 4	Bridges, New Hampton, Iowa....	4-15
5- 4	Bridge, Savannah, Ga..........	3-25
5- 4	Bridges, Elkhart, Ind..........	4-22
5- 6*	Bridge work, Chester, Pa.......	4-22
5- 7	Bridge, Northbend, Ohio........	4-22
5- 8	Substructure, etc., Hamilton, O..	4-22
5-21*	Superstructures, Gaspe, Que	4-22

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4-24	Hospital, Bremerton, Wash.....	3-25
4-24	School, Montreal, Que...........	4-15
4-26	Buildings, North Chicago, Ill....	3-11
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4-26	Building, Schenectady, N. Y.....	4-26
4-26	Schools, New York	4-15
4-26	Engine house, New York........	4-15
4-27	Stations, etc., Ottawa, Ont......	4-15
4-29	Quarters, Ft. Missoula, Mont.....	4- 8
4-28*	Post-office, Kewanee, Ill.........	4- 1
4-28	Armory, New York.............	4-15
5- 1	Plans, Vancouver, B. C..........	4-15
5- 1	Barracks, Columbus Barracks, O.	4-15
5- 1*	Post-office, Michigan City, Ind...	4- 1
5- 1	Quarters, Madison Barracks, N.Y.	4-22
5- 3	Bank, Aberdeen S. Dak.........	4-22
5- 3	Schools, New York	4-22
5- 3	Hospital, New York	4-22
5- 3*	Post-office, Lake Charles, La....	4- 1
5- 3	Refrig. plant, Leavenworth, Kan. (Mfg. Pl.)..................	4-15
5-10	Post-office, Yazoo City, Miss....	4- 8
5-11*	Sheds, New Orleans, La.........	4-15
5-12*	Heating, etc., Danville, Ill......	4-15
5-12	Plumbing, etc., Danville, Ill.....	4-15
5-12*	Post-office, Danville, Ill.........	4- 8
5-15*	Bldg. materials, West Point, N.Y.	4-15
5-15	Naval hospital, Wash., D. C....	4-15
5-20	Post-office, Shenandoah, Ia......	4-22
5-24*	Post-office, Eureka, Cal.........	4-22

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4-22	Fire hydrants, etc., Lancaster, Pa.	4-22
4-23	Water mains, Salt Lake City, Utah	4-15
4-26	Water-works, Sikeston, Mo......	4- 8
4-26	Water-works, Muncie, Okla......	4-22
4-26	Water-works, Clearwater, Fla....	4-22
4-27	Water extensions, etc., Las Animas, Colo......................	4-22
4-27	Water pipe, Ottawa, Ill.........	4-22
4-27*	Brass goods, New Orleans, La...	4- 1
4-29	Lake construction, Altoona, Pa..	4-15
4-29	Water mains, New York..........	4-22
4-29	Reservoir, Blue Island, Ill.......	4-22
4-30	Tank, etc., Salt Lake City, Utah.	4-22
5- 5	Pumping machinery, Petaluma, Cal.	2-11
5-10*	Water-works, Plankinton, S. Dak.	4-22
6- 1*	Pipe and specials, Philippines (U. S. Poss.)	3-25

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4-26	Sewers, Washington, D. C......	4- 1
4-26	Sewers, Jeffersonville, Ind......	4-22
4-27	Sewers, Cincinnati, Ohio.........	4-22
4-27	Sewers, Philadelphia, Pa........	4-22
4-28	Sewers, etc., Brooklyn, N. Y....	4-22
4-28	Sewers, etc., New York.........	4-22
4-29	Sewerage system, Manning, S. C.	4-22
4-30	Sewer pipe line, Gloversville, N. Y.	4-15
4-30*	Sewers, Louisville, Ky.	4-22
5- 3	Sewers, Newburgh, Ohio	4-15
5- 4	Sewers, Janesville, Wis.	4-15
5-10*	Sewer system, Plankinton, S. Dak.	4-22
5-10	Sewers, Lindsborg, Kan.........	4-22
5-12	Sewers, Mobile, Ala............	4-22
5-14	Sewers, Huron, S. Dak..........	4-22
5-18*	Sewer, Syracuse, N. Y.	4-15

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4-23	Paving, Harrison, N. Y.	4-15
4-23	Road impvt., Cincinnati, Ohio....	4-15
4-23	Paving, Des Moines, Iowa.......	4-22
4-23	Paving, Akron, Ohio...........	4-22
4-24	Grading, etc., Washington, D. C.	4-22
4-24	Grading, etc., Cleveland, Ohio...	4-15
4-26	Macadamizing, etc., Ashland, O..	4-15
4-26	Surfacing, etc., Boston, Mass....	4-15
4-27	Street impvt., St. Bernard, Ohio.	4- 8
4-28	Roads, Anderson, Ind..........	4- 8
4-28	Regulating, Brooklyn, N. Y......	4-15
4-28	Paving, etc., Columbus, Ohio....	4-22
4-28	Grading, etc., Baltimore, Md....	4-22
4-29	Setting curbstones, etc., N.Y....	4-29
4-29	Macadamizing, Hackettstown, N.J.	4-15
4-30	Roads, Fowler, Ind.	4-15
4-30	Road impvt., Cincinnati, Ohio...	4-15
5- 1	Paving, Racine, Wis............	4-22
5- 3	Road, Jasper, Ind..............	4-22
5- 3	Road, Danville, Ind.............	4-22
5- 3	Widening road, Accomac, Va ...	4-22
5- 3	Roads, Vernon, Ind.	4-15
5- 3	Grading, etc., Chardon, Ohio....	4-15
5- 3	Road, Hartford City, Ind.......	4- 1
5- 3*	Paving, etc., Kingston, Pa.	4-22
5- 3	Regulating, etc., New York	4-22
5- 4	Roads, Bloomfield, Ind.	4-15
5- 4	Road, Monticello, Ind.	4-15
5- 4*	Paving, Gainesville, Ga.........	4-22
5- 4	Grading, etc., Fowler, Ind......	4-22
5- 5	Regulating, Brooklyn, N. Y......	4-22
5- 5	Roads, Petersburg, Ind..........	4-22
5- 5	Roads, Bloomington, Ind........	4-22
5- 5	Road, Arlington, Va............	4-22
5- 5	Macadamizing, etc., Columbus, O.	4-15
5- 6	Paving, etc., New Brighton, Pa..	4-22
5- 7	Road impv't, Cincinnati, Ohio...	4-22
5- 7	Road impvt., Mount Gilead, Ohio.	4-15
5- 7	Road, Fowler, Ind.	4-15
5- 8	Roads, Spencer, Ind............	4-22
5-10	Macadam, etc., Concord, N. H....	4-22
5-10	Paving, Aberdeen, S. Dak......	4-22
5-10	Road, Huntington, Ind.........	4-22
5-11*	Pavement, Augusta, Ga..........	4-22
5-12	Road, Tipton, Ind..............	4-22
5-12	Paving, Mobile, Ala...........	4-22
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5-17	Road, Greencastle, Ind..........	4-22

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4-23*	Lock, Cincinnati, Ohio	3-25
4-24	Drain, Farmersville, Ill..........	4-15
4-26*	Pass, Wheeling, W. Va...	4- 1
4-27	Wharf, Prince Rupert, B. C.....	4-15
4-27	Walls, gateways, etc., New York.	4-22
4-30	Cable, Toronto, Ont.	4- 8
4-30*	Bronze railings, Wash., D. C....	4- 8
4-30	Jetties, Ft. Hancock, N. J.......	4-22
4-30	Fence, Ft. Yellowstone, Wyo....	4-22
5- 1	Quay wall, Key West, Fla.......	4-22
5- 1	Fencing, etc., Lynchburgh, Tex.	4- 8
5- 1*	Concrete walls, Louisville, Ky..	4- 8
5- 1*	Road machinery, Hawaii (U. S. Poss.)	3-25
5- 3*	Concrete wall, Charleston, S. C..	4- 1
5- 3	Cement, etc., New York........	4-22
5- 3	Riprap, Tompkinsville, N. Y....	4-22
5- 5	Floating baths, New York	4-22
5- 5*	Dredging, New London, Conn....	4- 8
5- 5*	Channel, Chicago, Ill.	4-15
5- 6*	Removing wreck, New York....	4- 8
5- 7*	Dredging, Wilmington, Del.......	4-15
5- 7*	Lumber, Wash., D. C............	4-22
5- 8*	Excavation, Portland, Me.........	4-15
5- 8*	Dipper dredge, Nashville, Tenn..	4- 8
5- 8	Seawall, dredging, Norfolk, Va..	4- 8
5-10	Dredging, Philadelphia, Pa......	4-22
5-10*	Iron fence, Boston, Mass.	4-22
5-11*	Ry. work, Phila. & Reading (Rys.)	4-15
5-12*	Canal, Augusta, Ga.............	4-22
5-14*	Cement, Hawaii (U. S. Poss.)....	4- 1
5-14*	Cement, Wheeling, W. Va.......	4-15
5-15	Dredging, Vallejo, Cal..........	4-22
5-17*	Purchase of gas tar, Richmond, Va.	4-22
5-17*	Raising jetties, Jacksonville, Fla.	4-22
5-20*	Wire fence, Missoula, Mont......	4-22
5-26*	Signals, towers, etc., Phila., Pa.	4-22
5-22	Dry dock, Hawaii (U. S. Poss.).	3-25
5-26*	Lock, Vicksburg, Miss..........	4- 1
5-28	Lighthouse, Cleveland, Ohio.....	4-22

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4-28	Physiologist, Wash., D. C......	4-22
5- 1	Arch. Designer, Albany, N. Y....	4-22
5- 1	Appraiser, Albany, N. Y.........	4-15
5- 5	Inspector, Wash., D. C..........	4-22
5- 5	Mech. Asst., Wash., D. C.......	4-22
5- 5	Asst. Chemist, Wash., D. C......	4-22
5- 5	Draftsman, San Francisco, Cal..	4-22
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5-24	Draftsman, New York, N. Y....	4-22
5-24	Draftsman, Boston, Mass.......	4-22
5-24	Draftsmen, Chicago, Ill.........	4-22
5-24	Draftsmen, Mare Island, Cal....	4-22
5-24	Draftsmen, Puget Sound, Wash..	4-22

RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

ALASKA CENTRAL.—WATSON & SNOW, of Spokane, Wash., have been awarded contract for constructing 20 miles of line from the present terminus, 52 miles inland from Seward, Alaska, to Turnagain Bay.

ALGOMA CENTRAL & HUDSON BAY.—The Ontario Government has granted this company a subsidy of 7,400 acres of land per mile for a line between Sault Ste. Marie and Michipicotan, Ont. As noted on Feb. 11, surveys have been made for an extension from the present end of track at Mile, 69.35 miles, at the Chippewa River, Ont., north to Michipicoten, mile 103.65. As noted on Jan. 21, "we are officially advised that surveys have been made for an extension from Pangissin, Mile 70, the present terminal. The line will be completed to Mile 170, and extended from Mile 163 to Canadian Pacific Ry., from C. P. R. to Grand Trunk Pacific, and from G. T. P. to James Bay, 440 miles. No contracts have been let on the proposed new work yet." C. N. Coburn is Ch. Engr., Sault Ste. Marie, Ont.

ANDROSCOGGIN VALLEY.—See Maine.

ATLANTA, BIRMINGHAM & ATLANTIC.—It is estimated that the line from Pelham, via Bessemer, to Mulga, Ala., will require $341,000 for completion and that the cost of the line from Pelham to Birmingham will be $620,763. H. M. Atkinson and P. S. Arkwright are receivers, at Atlanta, Ga. It is reported that preparations are being made to resume construction on both these lines and that financial matters have been arranged. Alex. Bonnyman is Gen. Mgr., Atlanta.

BANGOR & AROOSTOOK.—Company has petitioned the State Board of Railroad Commissioners of Maine for authority to build three new branches. The first is to connect at Masardis and extend to Stockholm, a distance of 48 miles, entirely in Aroostook County. It is intended to pass through Ashland, Mapleton, Washburn, Wade and Perham. The second connection is between Fort Kent and St. Francis plantation, near the junction of the St. John and St. Francis Rivers, a distance of 15 miles. The third petition is for a new line from Fort Kent through Frenchville, Madawaska and Grand Isle to Van Buren, a distance of 40 miles. Rights to build these lines have been granted by the legislature during the past six years, and the petitions indicate the intention of the company to proceed to their construction, probably in the near future, or as soon as locations are granted by the Commissioners. M. Burpee is Ch. Engr., Houlton, Me.

BENNETTSVILLE, & CHERAW.—Construction will begin at once on an extension of the main line from Drakes, S. C., southeast to Brownsville, 6½ miles. Line will be open for traffic about Aug. 15. The Bennettsville & Cheraw R. R. now runs from Drakes to Bennettsville and Kollocks, 14 miles. Henry A. Page is Gen. Mgr., Bennettsville, S. C.

BINGHAM & DEAD RIVER.—See Maine.

BOSTON & MAINE.—This company has placed orders that involve an expenditure for locomotives and cars alone of about $3,000,000. Twenty-five other locomotives, costing $430,000 and contracted for several months ago, are being delivered. The company is to start within a month on the construction of a repair plant in East Somerville. This will cost between $1,500,000 and $2,000,000. The equipment now being ordered includes 28 wheel passenger locomotives, 20 mogul freight locomotives and 10 switching locomotives; 900 box cars with steel underframes and of 60,000 pounds capacity, have been contracted for, as well as many other cars. It is expected that about June 15 the system of train dispatching by telephone now being installed on the Fitchburg division between Boston and Fitchburg and branches east will be in operation.

CAIRO & NORFOLK.—Announcement is made that the ATLANTIC & CAIRO CONSTRUCTION CO., Inc., 111 Broadway, New York, which has the contract for building the Cairo & Norfolk R. R., has begun active construction work on the first section of the road at the Mississippi River and ending at Mayfield, Ky., about 32 miles in length. The second section from Mayfield to the crossing of the N. C. & St. L. R. R. will be started in the very near future and a little later in the season the company expects to begin work on the third section from the crossing of the N., C. & St. L. R. R. to the city of Hopkinsville, Ky., a total of about 115 miles of track. E. E. Weston is Pres., 111 Broadway, New York; Chas. H. Delano, Gen. Mgr., Mayfield, Ky., and W. B. Hooker, Engr., Mayfield. Noted on April 8.

CANADIAN PACIFIC.—FITZGERALD & O'CONNOR, Omaha, Neb., have each been awarded a contract for building 50 miles on the line between Lethbridge and Calgary, Alta.

COBALT RANGE RY.—The Dominion Government has authorized the company to construct the following lines: From Haileybury, Ont., to Elk Lake via Bucke, Firstbrook, Barr or Hudson, Lundy, Auld, Cane or Henwood, Barber, Tudhope or Bryce and James, thence to Gowganda Lake. From Ville Marie, Que., to Opasilica Lake, and thence to the N. T. R. The company must begin to build within two years, and must complete construction within five years. Noted on Feb. 4.

DARDANELLE, OLA & SOUTHERN.—An extension is proposed to Paris, Ark. Company now operates a railroad 15 miles long from Dardanelle, Ark., to Ola. J. B. Crowover is Vice-Pres., Dardanelle.

FARMERS & STOCK GROWERS' R. R.—Chartered in Kansas to build a line from Pratt, through Edwards, Kiowa, Ford, Gray, Haskell, Grant and Stanton Counties, and branches. The proposed line is to be about 200 miles long. The incorporators are: G. C. Brown, J. N. Brown and J. H. Collingwood, of Plains; J. R. Bolin and J. E. George, of Liberal. Capital, $100,000.

GALVESTON, HARRISBURG & SAN ANTONIO.—Surveys are under way, it is said, for a branch line to extend from Blessing, Tex., to Portsmouth, via Collegeport. A. V. Kellogg is Engr., Houston, Tex.

GRAND TRUNK PACIFIC.—The DOMINION STEEL CO., Sydney, N. S., has been awarded the contract for the supply of steel rails for the first 100 miles of the Grand Trunk Pacific R. R. eastward from Prince Rupert, B. C.

HAMPSHIRE SOUTHERN.—Company will build a railway from Romney to Petersburg, W. Va., about 40 miles. W. B. Cornwell is Pres., and Raymond Abbaticchio is Secy., at Fairmont, W. Va.

KANSAS CITY, OLATHE, OTTAWA & IOLA.—Company will soon let construction contracts. This line will be built from Kansas City, southwest via Olathe and Ottawa to Iola. During the past four years three complete surveys have been made for this line and the final location provides that no grade will be above 1% and no curve greater than 1°. Financial arrangements have been made and company is now ready to award contracts for the first division of 50 miles, between Iola and Ottawa.

KEEWATIN & KENORA.—The Ontario Government has granted this company a subsidy of 1,000 acres per mile for a line to run between these two towns in western Ontario.

LAKE ERIE & EASTERN.—Surveys have been made, $3,000,000 capital secured, it is reported, and contracts will be let as soon as franchises are secured. W. H. Park, Youngstown, Ohio, is Pres.; J. F. Wm. Retter, Youngstown, Ohio, is Secy., and J. W. Fawsett is Ch. Engr. The line will connect Youngstown and Lorain, Ohio, 80 miles. According to the Pittsburg "Post," as noted on Dec. 17, this company "will spend $5,000,000 in the next two years putting the Lake Erie & Eastern R. R. through Youngstown, Ohio, with no grade crossings. A franchise in Youngstown for a four-track road will be asked. The right-of-way has been secured from Struthers to Girard, $2,000,000 being expended for it. The road is to be a New York Central line and will parallel the Erie, the Baltimore & Ohio and the Pennsylvania roads, running on the south side of the Mahoning River for the most part, but crossing it twice in Youngstown at the plants of the Carnegie Steel Co. Work on the line is expected to begin next spring."

LOUISVILLE & NASHVILLE.—The KREIS & FRENCH CONSTRUCTION CO., Vanderventer Bldg., Knoxville, Tenn., has contract for L. & N. cut-off between Madison and Goodlettsville, Tenn.

MAINE.—Applications are before the State Legislature of Maine for the incorporation of the following railroads: The Rockland & Thomaston Cement R. R., which proposes to construct a railroad for the New England Cement Co., for removing materials to the cement works at Rockland from the clay and lime rock in Thomaston. S. T. Kimball, Rockland, Me., is interested.

The Androscoggin Valley R. R. Co., which proposes to extend the Auburn & Turner R. R. through to Livermore Falls. A. L. Kavanaugh, Lewiston, Me., is interested.

The South Portland Ry. & Terminal Co., which proposes to construct a steam road along the shore front in South Portland to connect with the Boston & Maine. David E. Moulton, Portland, Me., is interested.

The Bingham & Dead River R. R., which proposes a steam or electrically driven road to connect Bingham and Eustis by the way of Moscow and Carrantank Plantation, Pierce Township, Township No. 3 and Flagstaff. Cyrus M. Blanchard, Wilton, Me., is interested.

MICHIGAN & NORTHEASTERN.—An extension will be built into Kalkaska County, near Frederick, Mich. Headquarters, Manistee, Mich.

MEMPHIS, PARIS & GULF.—Company plans to build an extension from either Murfreesboro to Hot Springs, Ark., or from Murfreesboro via Arkadelphia to Malvern, Ark. C. C. Henderson, Nashville, Ark., is Gen. Mgr.

MISSOURI, OKLAHOMA & GULF.—J. W. HOFFMAN & CO., Bryant Bldg., Kansas City, Mo., have general contract for 50-mile section from Calvin to Tupelo and Durant, Okla.

MISSOURI PACIFIC.—Contracts have been awarded to the L. J. SMITH CONSTRUCTION CO., Commerce Bldg., Kansas City, Mo., for ballasting the lines between Kansas City, Mo., and Pueblo, Colo., and between Coffeyville, Kan., and Little Rock, Ark., and between Little Rock, Ark., and Leeper, Ark.

MUSKOGEE BELT & TERMINAL R. R.—This company proposes to build a 20-mile belt line at Muskogee, Okla., to cost $20,000. Capital stock, $50,000. The incorporators are P. L. Soper, J. H. Huckleberry, M. Huckleberry, R. Hamblin and F. C. Sabourin, all of Muskogee.

NEBRASKA, KANSAS & SOUTHERN.—Contract has been let by the KANSAS RAILWAY CONSTRUCTION CO., which has the contract for building the Nebraskan, Kansas & Southern line from Garden City to Stockton, Kan., to SCOTT & SMITH, of Memphis, and St. Louis. The contract provides for the grading of the line from the northeast end of the section let to Wheeler and Keleher, 16½ miles northeast of Garden City, to Stockton; and for the laying of the ties and steel the entire distance from here to Stockton, a distance of 162 miles. F. T. Burnham, Garden City, Kan., is Gen. Mgr.

NORFOLK & WESTERN.—Contracts for work in Ohio have been let as follows: Contract let to J. O'KELLY CONSTRUCTION CO., Ashland, Ky., for the first section east of Coal Grove. The remaining two sections east of Portsmouth, Ohio, will be completed by company forces. The fourth section, between Higby, Ohio, and Renick, 11 miles, is being graded by company forces. Contract let to JONES BROS., Columbus, Ohio, for the masonry work on this section. The fifth section, from Lockbourne, Ohio, to Valley Crossing, 4.7 miles, is being graded by company forces. Contract let to JONES BROS., Columbus, for the masonry work of this section. Noted on April 1.

NORTHERN PACIFIC.—FOLEY BROS., St. Paul, Minn., have contract for building the Shields River R. R., from Livingston, Mont., for a distance of 40 miles.

PENNSYLVANIA R. R.—The Borough Council of Greensburg, Pa., has under consideration extensive plans by the Pennsylvania R. R. Co., which call for the expenditure of about $1,000,000 worth of improvements in Greensburg.

*PHILADELPHIA & READING.—Signals.—See under Miscellaneous Contracts.

ROCKLAND & THOMASTON CEMENT R. R.—See Maine.

SEABOARD AIR LINE.—The MARYLAND DREDGING & CONTRACTING CO., Frank A. Furst, Pres., 804-806 Fidelity Bldg., Baltimore, Md., has begun dredging at foot of Brunswick St., Wilmington, N. C., for proposed docks and slips, which will be part of terminal improvements planned for Wilmington by Seaboard Air Line Railway, according to the "Manufacturers' Record." V. S. McBee, Jr., Engr., Raleigh, N. C., will be in charge of work; $140,000 has been appropriated.

SHIELDS RIVER R. R.—See Northern Pacific.

SOUTH PORTLAND RY. & TERMINAL.—See Maine.

TEXAS.—A bonus of $58,000 has been raised by citizens of Menardville, Texas, which, together with right-of-way through the county, will be given to any railroad first building to Menardville. J. D. Scruggs, County Judge of Menard County, and others are interested.

A stock company is to be organized with capital stock of $250,000, to build a line of railway from Pine Hill to Henderson, Tex., a distance of 15 miles. J. B. Wilson, of Dallas, and W. G. Ragley, Pres. of the Timpson & Northwestern Ry. Co., are interested in the venture.

ELECTRIC RAILWAYS.

SYRACUSE, N. Y.—The Rochester, Syracuse & Eastern R. R. Co. has let contract to I. A. HODGE & CO., INC., Syracuse, for building the R., S. & E. R. R. from a point between Jordan and Memphis to a line of the Syracuse, Lake Shore & Northern R. R. at Lakeland. The work from Port Byron to the point where the Hodge contract begins will be done by I. M. LUDDINGTON, of Rochester. It is expected the railroad can be completed this year.

CLARION, PA.—We are officially advised that the Clarion & East Brady Electric Ry. Co. is now making surveys with Geo. S. Baton & Co., Keystone Bldg., Pittsburg, Pa., in charge. The final location of the line will be made at once and the company will buy its right-of-way in fee, and expects to start construction within 60 days. This road will connect with the Franklin & Clearfield R. R., with direct connections east and west, and will carry both freight and express. The power-house will be equipped for furnishing light to the different towns through which the road will pass. Noted on Feb. 25.

ALLENTOWN, PA.—The Allentown & Reading Traction Co. will build extensions and make improvements this summer, it is stated. The line between Lyons and Trexlertown, via Alburtis, is to be built, and work will be begun at an early date. The right-of-way has practically been secured. From Lyons the road will run parallel with the East Penn branch of the Philadelphia & Reading Railway. It will touch the towns of Bowers, Topton, Hancock, Mertztown, Shamrock, Alburtis, Lehigh Church, Wellersville and Spring Creek. A spur three miles long will be constructed from Trexlertown to Fogelsville, where the Lehigh Cement Co.'s plant is located. The entire distance of the new road will be 15 miles, including the branch to Fogelsville. The latter will touch Chapman, Seipstown, Clausstown and other villages. S. K. Hoffman is Secy., Hamburg, Pa.

KENNETT SQUARE, PA.—The Kennett-Coatesville Traction Co., which proposes building a trolley line from Kennett through Londongrove, and Doe Roe to Coatesville, has just reorganized, and Wm. H. Thompson, of Doe Run, has been elected Pres., and Edward Walton, of Londongrove, Secy. and Treas. These, with Pusey W. Buffington, Samuel Moore, Walter Wood, Wm. Cloud and Morris Wood, constitute the Board of Directors.

CONCORD, N. C.—David Barry, of Amherst, Mass., and James W. Barry, of Charlotte, N. C., have applied to the County Court at Concord for an electric railway franchise from Charlotte to Concord.

PHOSPHORIA, FLA.—We are officially informed that the CONSOLIDATED TRAMWAY CO., 45 Broadway, New York, and Roanoke, Va., has been awarded contract for the construction of a line for Armour & Co., of Chicago, near Phosphoria. Construction work on this line will begin at once, and it is expected that the line will be put in operation within 30 days thereafter. This tramway will be used for moving pebble phosphate and will have a capacity of 180 tons per hour.

MAYSVILLE, KY.—The Cincinnati, Louisville, Lexington & Maysville Traction Co. has been chartered in Kentucky, with $10,000,000 capital stock, by W. T. S. Blackburn, of Dry Ridge, Grant County, President of the company and one of the promoters. The articles provide for the construction of a complete electric traction system, to be operated between Cincinnati and Lexington and Maysville and Louisville, crossing each other at Dry Ridge. It will be about 250 miles long.

CLEVELAND, OHIO.—The Cleveland Subway Co. has been incorporated to construct electric railways under all the principal streets of Cleveland, including Euclid and Superior Sts., Clear and Cedar Aves., Broadway, Detroit Ave., etc. Application for a franchise has been filed. Capital stock, $10,000. Incorporators: F. A. Mehling, W. A. Greenland, A. L. Lang, William C. Fischer and Thomas P. Schmidt.

CLEVELAND, OHIO.—The directors of the Cleveland, Brooklyn & Elyria Ry. Co., it is announced, will hold a meeting on April 20 to consider proposition to increase the capital stock from $100,000 to $6,000,000, and to make preparations to begin the construction of this electric railway. It will connect Cleveland and Zanesville, Ohio. Another matter in contemplation is the change of name to the Cleveland, Barberton, Coshocton & Zanesville Ry. Co. The proposed railway will touch Parma, Strongsville, Elyria, North Royalton, West Richfield, Ghent, Montrose, Copley, Royal Oak, Barberton, Doylestown, Orrville, Millersburg, Coshocton and Zanesville. J. Harry Knisely, Jr., is Secy., 319 Citizens' Bldg., Cleveland. Noted on Jan. 21.

NEWCASTLE, IND.—Following a hearing recently before Judge Vinson Carter, of Superior Court, at Indianapolis, representatives of the Union Trust Co., receiver for the Indianapolis, Newcastle & Toledo Ry. Co., it was announced that bids would be received May 1 or soon thereafter for the completion of the road between Indianapolis and Newcastle, 38 miles. The receiver will prepare specifications for the bidders immediately. Noted last week.

DETROIT, MICH.—The Detroit Railway Co. has made the announcement that it has decided to expend $1,000,000 this year in laying new rails and foundations on Woodward, Gratiot, Trumbull, Brush and other streets upon which its franchises expire within six months. F. W. Brooks is Gen. Mgr.

ELGIN, ILL.—The Elgin & Evanston Ry. Co., has been incorporated to construct an electric railway from Elgin through Desplaines to Evanston. Capital stock, $2,500. Incorporators: C. A. Sayer, J. A. Hessler, A. W. Hellis, E. F. Reynolds and G. H. Norton, all of Berwyn, Ill.

MILWAUKEE, WIS.—Stockholders of the Milwaukee Western Electric Railway Co., which will build a line from Milwaukee to Beaver Dam, will meet on May 3 to name a new board of directors and elect officers. Options on depot sites and deeds to a number of miles of right-of-way are said to have been secured. Hustisford and Pewaukee have already granted franchises and ordinances are pending in all other cities and villages along the route. Surveys are being made for the proposed electric railway running northwest from Milwaukee through Hustisford, Juneau and other towns to Beaver Dam, a distance of 70 to 75 miles, according to the route finally selected. About two-thirds of the route has been surveyed, and maps have been filed with the State Railroad Commission. The contract has been awarded to C. A. CHAPMAN, Inc., Engrs., Marquette Bldg., Chicago. J. W. Barber, Majestic Bldg., Milwaukee, is Secy.

CLINTON, IOWA.—We are officially advised that the Central Ry. Co. of Iowa will let contracts at once for earth and bridge work. This railway, as previously noted, will connect Clinton, Elvira, Bryant, Goose Lake, Charlotte, Delmar, Maquoketa, Hurstville, Dugan, Garry Owen, Cascade, Rockdale and Dubuque, 84 miles in length. It will be operated by electricity. Thos. J. Wilcox, Clinton, is Pres. and Gen. Mgr. Surveys are made and right-of-way partly obtained. Capital has been secured. Noted on Oct. 15.

IOLA, KAN.—Construction will be commenced next month probably by the Interstate Ry. & Power Co. (successor to the Southern Kansas Ry., Light & Power Co., of Chanute, Kan.), on the Iola-Chanute, Kan., division and also the Lawrence, Kan., to Kansas City, Mo., section of this proposed electric railway system which, when completed, will be about 300 miles in length. It will connect the following cities. Kansas City, Mo., Lawrence, Topeka, Baldwin, De Soto, Ottawa, Garnett, Iola, Humboldt, Chanute, Thayer, Parsons, Cherryvale, Independence and Coffeyville. Track has already been laid at Coffeyville. There will be two power stations, probably at Chanute and Lawrence, Kan. Capital stock, authorized, $4,000,000. Bonds, authorized, $11,000,000. Headquarters, 607 Bryant Bldg., Kansas City, Mo. R. C. Rawlings, Kansas City, Mo., is Pres., Gen. Mgr. and Pur. Agent; Charles E. Sutton, Lawrence, Kan., Vice-Pres.; F. C. Dixon, Chanute, Kan., Secy.; L. Rosenthal, Chanute, Kan., Treas.; E. H. Abadie, Times Bldg., St. Louis, Mo., Electrical Engr.; J. W. T. Stephens, New Orleans, La., is Ch. Engr.

LAWRENCE, KAN.—The City Council has granted C. C. Sullivan, representing Dayton (Ohio) capitalists, a franchise for an electric street railway in Lawrence. W. Laming, representing the Kansas City & Kansas Southwestern Railway, was also granted a franchise for an interurban railway through the city.

HELENA, MONT.—The Montana Rapid Transit Co. has been incorporated to build an electric railway, 72 miles long, from Helena to East Helena, Jefferson, Boulder, Basin Calvin to Butte. Two branches are planned, one into the camp of Corbin, and the other from East Helena to Lakeview on Lake Hauser. Preliminary surveys have been made and more than one-half of the right-of-way purchased. Capital stock, $5,000,000. Joseph K. Toole is Pres.; H. G. Pickett, Vice-Pres.; E. C. Day, Secy.

ROLLA, MO.—E. E. Young, Spokane, Wash., is considering a proposition to build an electric railway from Rolla to Cabool, via Licking and Houston.

ST. LOUIS, MO.—The United Railways Co., of St. Louis, will lay 40 miles of new track this year. The estimated total cost is $1,200,000. Richard McCulloch is Asst. Gen. Mgr., 3869 Park Ave., St. Louis.

EUREKA SPRINGS, ARK.—The Ozark Traction System, of Eureka Springs, has been chartered with $50,000 capital and the following incorporators: S. M. Mitchell, Pres.; W. T. Ayers, Vice-Pres.; B. J. Rosewater, Secy.; O. H. Orendorf, Treas.; L. P. Badger, A L. Brown and L. B. Brown.

CLINTON, OKLA.—The Clinton Street Railway Co., capital, $50,000, has been chartered, and the Clinton Railroad Construction Co., capital $10,000, was incorporated by the same parties. The Directors are C. W. Goodwin, R. O. Hunt, M. L. Holcombe, Chas. H. Lamb, E. M. Tittsworth, A. N. Curry, E. A. Humphrey and B. A. Little, all of Clinton, Okla., and H. Smith, of Arapahoe, Okla.

SAN JOSE, CAL.—The San Jose Ry. Co. will change its line (15 miles in length) from narrow-gage to standard-gage. Geo. L. Barker is Gen. Mgr.

WINNIPEG, MAN.—At the annual meeting of the Winnipeg Electric Ry. Co. it was decided to issue $1,500,000 of new stock for extensions and improvements. W. Phillips is Gen. Mg. and Ch. Engr.

HONOLULU, HAWAII.—We are officially advised that the Pearl Harbor Traction Co., Ltd., probably will let construction contracts in July or August. Company has made surveys, obtained all capital and right-of-way and is now preparing maps, specifications, etc. The line will extend from Honolulu to Pearl Harbor, ten miles, but later will be extended to Waialua, Oahu, 40 miles from Honolulu. L. Tenney Peck is Pres.; C. G. Ballentyne, Mgr., and A. L. Castle, Secy., Honolulu. Noted on Feb. 25.

LIGHT AND POWER PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

WEST POINT, N. Y.—We are officially advised that bids were received on March 19 by the Quartermaster, West Point, for furnishing and installing a steam electrical distributing and street lighting system for the cadet camp. The contract has been awarded to the OKONITE CO., 253 Broadway, New York. Major J. M. Carson, Jr., is Q. M.; H. C. Meyer, Jr., 1 Madison Ave., New York, is Engr. Cost, $4,000.

NEW YORK, N. Y.—Bids were received as follows on April 14, by Bird S. Coler, Pres. Boro. of Brooklyn, for furnishing all the labor and material required for constructing motor pit, shaft tunnel and drainage structures and appurtenances complete for the power plant for Gowanus Flushing tunnel, at the head of Gowanus Canal, Boro. of Brooklyn: Henry E. Fox, 60 East 125th St., New York, $24,200; Merrill-Ruckgaber Co., 50 Church St., New York, $24.800; Phoenix Construction Co., 41 Park Row, New York, $33,897; Rogers & Hagerty, 75 Henry St., New York, $26,564.

The WALWORTH MANUFACTURING CO., 134 Federal St., Boston, Mass., has been awarded the contract by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for condensing equipment and piping for one 1,000-KW. alternator at the Navy Yard, New York, N. Y., at $10,923.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 11 a. m., May 3, for completing and finishing the installation of electric equipment in new Public School No. 89, on the southeasterly side of Orchard Ave., between Fifth and Sixth Sts., Elmhurst, Boro. of Queens, in accordance with the original plans and specifications of contract awarded to L. F. Benn, which has been declared abandoned.

Bids were received on April 19 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for installing electric equipment in additions to and alterations in Public School No. 87, on west side of Dry Harbor Road (Washington Ave.), between Pulaski and Wayne (Lafayette) Sts., Middle Village, Boro. of Queens. We are officially advised that contract has been let to F. FREDERICK JACKSON, INC., 592 Columbus Ave., New York, at $4,069.

NEW YORK, N. Y.—Bids were received as follows on April 16 by Allen N. Spooner, Comr. Dept. Docks and Ferries, for furnishing all labor and materials required for the furnishing and installing mechanical and electrical equipment on Piers Nos. 53, 54, 57, 58, 59, 60, 61 and 62, North River, between Bloomfield and West [illegible] Sts., on Chelsea Section in the Boro. of Manhattan: North-Eastern Construction Co., 225 Fifth Ave., $745,000; Evans Almirall & Co., 281 Water St., $809,000; Lord Electric Co., 213 West [illegible] St., $764,430; Snare & Triest, 143 Liberty St., $747,700; Henry S[illegible], 17 Battery Pl., $828,900; Cooper & Evans [illegible] and Grant Rohrer, 220 Broadway, $773,973; [illegible]re Meenan Construction Co., 206 Broadway, $1,029,353; P. J. Carlin, 1 Madison Ave., $777,700.

BLOOMSBURG, PA.—We are officially advised that the Columbia Power, Light & Railways Co., Bloomsburg, will place contracts at once for the building of a 25-mile 23,000-volt, 3-phase transmission line, with about 2,000 KW. of [illegible]r transformers, lightning arresters, etc., will also install a 500-HP. hydraulic turbine, a 300-KW. railway generator and a 200-[illegible] belted railway generator, with switchboard, etc. The company will do its own work. B. O. Ellis is Gen. Mgr.

WASHINGTON, D. C.—Bids will be received by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., until April 27 to furnish at the navy yards and naval stations the following supplies: Brooklyn, N. Y., or Mare Island, Cal., Schedule 1089—65,000 ft. solid double braided wire. Brooklyn, N. Y., Schedule 1099—Four 300-KW. turbo-generating sets. Schedule 1108—Electrically driven reversible 2-speed deck winch. New Orleans, La., Schedule 1110—Panel board and distribution cabinet, cable, wire, etc.; panel board connections, steel conduit, etc.

RICHMOND, VA.—Bids will be received at the office of the City Electrician, City Hall, Richmond, Va., until 5 p. m., April 27, for furnishing material and labor required for the construction and equipment of an electric light plant, including construction of dams, raceways, foundations and other concrete work, rock excavation, radial brick chimney, turbines, intake gates and gear, trash racks, electric generators, steam turbines, exciters, switchboards, regulators, electric wiring, boilers, steam and water piping, railways, pumps, condensers, lamps and other accessories. E. W. Trafford is Consult. Engr., Chamber of Commerce Bldg., Richmond, Va.; E. D. Richardson is Chn. Com. on Electricity.

SALISBURY, N. C.—The Southern Power Co., of Charlotte, N. C., has completed plans to erect a transformer station at Salisbury, at a cost of $50,000. W. S. Lee, Jr., Charlotte, is Ch. Engr.

ANDERSON, S. C.—Contracts for additional machinery to be installed in the Gluck Mills, Anderson, have been awarded to HOWARD & BULLOUGH AMERICAN MACHINE CO., Pawtucket, R. I., and for electrical power equipment to the GENERAL ELECTRIC CO., Schenectady, N. Y. Robert E. Ligon is Pres.

LA GRANGE, GA.—We are advised by A. Francis Walker, Engr., Austell Bldg., Atlanta, Ga., that contracts have been awarded for power plants at the additions to the Unity Cotton Mills, of La Grange, and the Manchester Cotton Mills, of Manchester, Ga., as follows: HOOVEN-OWENS-RENTSCHLER CO., Hamilton, Ohio, engines of about 800 HP. and 1,000 HP.; HARRISBURG FOUNDRY & MACHINE CO., high-speed electric engines; GENERAL ELECTRIC CO., Schenectady, N. Y., generators and dynamos; DEAN BROS. STEAM PUMP WORKS, Indianapolis, Ind., pumping and condensing machinery, and R. D. COLE MFG. CO., Newnan, Ga., boilers, tanks, etc. Fuller E. Callaway, La Grange, is Pres. of both companies.

MANCHESTER, GA.—See item under La Grange, Ga.

TALLADEGA, ALA.—The City Council has granted a perpetual franchise to the Alabama Power Development Co., removing a provision in its former franchise limiting the manufacturing of electricity to the water power at Jackson Shoals, and permitting the use of either water or steam in generating electricity. The power company agrees to build a high tension line connecting immediately with the Anniston plant, and eventually to extend the line to Little River Falls, in Cherokee County. It is estimated that $3,000,000 will be expended in the perfection of the plans of this company, and of this sum $300,000 will be spent immediately. The Jackson Shoals plant, where about 300 HP. is at present available, will be further developed, and a dam built at a point 23,000 ft. lower than the present one, which will give additional power.

HARRISBURG, MISS.—We are officially advised that contract for constructing power-station building with one 500-KW. and one 325-KW. direct-connected units, also a 150-KW. motor-generator set, rehabilitation of about six miles of track, erection of overhead work, four cars and equipment of same, was awarded to A. M. HEWES, Monadnock Bldg., Chicago, by the Hattiesburg Traction Co., Hattiesburg, Miss., on April 8. It is expected that the work will be finished Aug. 15.

MACON, MISS.—G. B. Baskerville, Jr., Supt. municipal light and water plant, informs us that on April 6 the citizens of Macon voted a $20,000 bond issue for the purpose of improving the city light and water plant. Bonds will be used to install additional electrical unit, either steam or some form of combustion engine, and to install motor-driven pumps. A line probably will be run to Brooksville, supplying that town with current. Mr. Baskerville is Designing Engr.

BRIDGEPORT, OHIO.—Bids are asked by the Village Council until June 1 for street lighting for a term of ten years. The village has a population of over 4,000 inhabitants. R. T. Michener is Village Clk.

DECKER, IND.—Eugene Rush, Pres. of Vincennes, Ind., advises us that the Hydro Electric Co. intends to erect a water-power plant near Decker, on White River. Work on the undertaking will begin as soon as Congress has granted permission to the company the right to proceed. Mr. Rush is securing engineering data. He has measured the velocity of the stream at the site of the proposed dam at every variation of stage, this work having been carried on since the flood in January until the extreme low stage was reached last week. S. F. Cresilius, of Louisville, Ky., is Engr.

BRAZIL, IND.—Press reports state that the controlling interest in the property of the Brazil Electric Co., of Brazil, has been purchased by a company of which F. M. Fauvre, of Indianapolis, Ind., is the head. The interest purchased had been owned by P. [illegible] C. Ball, of St. Louis, but a small part of the stock is still owned in Brazil. The deal is in furtherance of the plans of Mr. Fauvre and his associates, among whom is Paul H. White, of Indianapolis, to establish a system for furnishing electric light and power to cities and towns between this city and Terre Haute, and later to patrons in this city. The plan has been under way for several years. The Brazil plant has a capacity of about 1,000 HP., but it is the intention to increase this, probably to 1,500 HP., by next fall, in order to furnish light and power in Brazil, and also to transmit it for use in Greencastle.

RUSHVILLE, IND.—Bids are asked until May 14 by the city of Rushville for furnishing engine, piping, alternating-current generator and exciter to be installed in the municipal electric light plant. S. G. Gregg is City Clk., and A. T. Mahin, Supt. of the Municipal Electric Light Plant; Harvey M. Cowing is Mayor.

CHAMPAIGN, ILL.—The power-house of the University of Illinois is to be enlarged during the summer vacation. The addition will be over twice as large in itself as the present power-house, located directly east of the electrical engineering laboratory on Burrill Ave. It will extend toward the north of the present shop and approach the south limit of the machine shops to within the distance of a wagon road. The addition will be 86 × 85 ft., 36 ft. to the cornice and 58 ft. to the ridge, the total height. It is to be constructed of brick with stone trimmings, and will be complete probably by the ensuing first of September. Work will commence before June 1. No machinery is to be installed in the building at present, but it is expected that this will be accomplished in the near future. The heating power of the plant will be raised from 1,500 to 5,500 by the installation of the new apparatus.

PETERSBURG, ILL.—The management of the Petersburg electric light plant is planning to change the system from single-phase, 125 cycles to 3-phase, 60 cycles, which will require the installation of a 150 or 200 HP. engine and a 150 or 200 KW. alternator. R. H. Abbott is Pres. and Mgr.

JEFFERSON, WIS.—A brick chimney, 90 ft. high, is being erected by the Copeland & Ryder Co., which plans to install an electric power plant.

MILWAUKEE, WIS.—The Pabst Brewing Co. will begin construction at once of a power-house at Cold Spring Ave. and 13th St. Cost, $19,000.

DANBURY, IOWA.—Plans are being considered to install a municipal electric light plant in Danbury to cost about $7,000.

FORT SCOTT, KAN.—F. D. Martin, Supt., Fort Scott Gas & Electric Co., has announced that work is to be started within the next few weeks on improvements to the equipment of the company, to cost about $80,000.

GRAND FORKS, N. DAK.—The Board of Regents of the North Dakota University has awarded the contract for the construction of the new power-house to MELBY & STANDAHL, of Grand Forks, and for the erection of the 125-ft. concrete smokestack to ALPHONS CUSTODIS CHIMNEY CONSTRUCTION CO., 204 Dearborn St., Chicago, Ill.

CLARKSBURG, MO.—Plans are being considered to install an electric light plant in this town. Charles Knirnschild, of Clarksburg, is interested.

CARLISLE, ARK.—The Carlisle Rice Mill Co. has awarded the contract for its proposed power plant for rice mill to the SOUTHERN ENGINE & BOILER WORKS, of Jackson, Tenn., which includes a 400-HP. Corliss engine, high-pressure boilers, pumps, automatic engine and lighting plant.

MINCO, OKLA.—Bids are asked until April 26 by Burns & McDonnell, at Minco, Okla., for constructing an electric light plant and water-works.

DENVER, COLO.—The Central Colorado Power Co. has let contract to CHARLES G. SHEELY, McPhee Bldg., Denver, for the erection of a $50,000 transformer station, to be built one-half mile west of the city limits, and work has already begun on the structure. The construction of this building, which is expected to be finished and in commission June 1, marks the inauguration of the delivery of power from the company's great Shoshone plant near Glenwood, capable of furnishing 18,000 HP. to this city and intervening points. The Denver Gas & Electric Co. has contracted for the power of the Central Colorado Co. G. H. Walbridge, Colorado Springs, Colo., is Gen. Mgr. of the Central Colorado Power Co.

SANTA FE, N. MEX.—The Springer (N. Mex.) "Stockman" states that a $450,000 power project on the upper Pecos River, [illegible] miles east of Santa Fe, has been approved by the Territorial Engineer. The plant is to generate 4,500 HP. to supply Santa Fe, Las Vegas and Albuquerque with power. The water will be taken out of the Pecos River and its tributaries, and 120 cu.-second-ft. are appropriated for the purpose. The applicant is Ernest H. Fischer, of Cimarron, N. Mex., and in addition to the cement-lined ditches, a 5-ft. pipe line six miles long will be laid.

The Territorial Engineer also has approved the application of Darwin T. Mason for 100 cu.-second-ft. out of the Gila River to reclaim 10,000 acres in Grant County under the proposed Mohawk ditch. On the project $32,000 is to be expended.

The application of William Meader for the Oasis and Nebraska reservoirs and the surplus waters of the Sugarite in Colfax County has been approved also.

SPOKANE, WASH.—The Northern Idaho & Montana Electric Light Co. contemplates the construction of a large hydro-electric power plant at Cabinet Gorge, on Clark Fork River, where it is reported that 75,000 HP. can be developed, at a cost of about $2,000,000. The company was incorporated recently and has taken over several electric light and water plants in the northern part of Idaho and Montana, including the plant of the Pend Oreille Electric Light Co., of Sandpoint, Idaho; the Newport Light & Power Co., of Newport, Wash.; the Flathead Valley Power Co., of Kalispell, Mont., and others. The company proposes to furnish electricity for lamps and motors in every town in the northern part of Idaho and Montana, and will also furnish water to the different cities through the local plants acquired.

CHEHALIS, WASH.—The Valley Development Co. is to proceed at once with its power project at Packwood Lake, in the eastern part of Lewis County, in the Cascade Mountains. The company has been at work in that section for the past three years and the engineering features are completed. R. Green is the principal promoter. It is intended to store water at Packwood Lake. Reservoirs and dams will be built. Power will be transmitted to southwestern Washington and to Portland and the Sound cities.

PROSSER, WASH.—The Prosser Power Co. is contemplating the construction of new generating plant, two miles east of Prosser. The plant will be equipped with two units of 500 HP. each. The company has taken over the water-works system and franchises and electric light and power department of the Prosser Falls Land & Power Co., also the machine shop operated in connection with the plants. Edwin F. Benson is Pres.; John Chisholm, Vice-Pres., and Harry C. Benson, Secy.

ST. HELENS, ORE.—The St. Helens Lumber Co. has awarded the contract for the construction of its power plant to NORTHWEST BRIDGE CO., of Portland, Ore.

OAKLAND, CAL.—The Central Oakland Light & Power Co., which was incorporated with a capital stock of $1,250,000 in San Francisco recently, has purchased a site for its plant in Alice St., between First and Second Sts., and construction work will begin at once. The new company will produce and sell electric light and power and steam heat and power to the city of Oakland and to other cities and towns. The incorporators of the company are A. M. Hunt of Berkeley, James Fisher of Berkeley, J. K. Moffitt of Oakland, M. S. Wilson, M. D. Levenson, F. G. Cartwright and C. N. Beal of San Francisco.

OROVILLE, CAL.—The Great Western Power Co., which has a 150,000-HP. electric plant at Las Plumas, on the Feather River, 20 miles above Oroville, is to extend into the reclamation districts of the delta of the Sacramento and San Joaquin rivers, between Sacramento and Stockton. Power for pumping water, harvesting crops and for other purposes, and lights for the towns and farms will be supplied. The company will build and equip the distributing systems that will carry the power to the islands, and the consumers will be supplied at a low monthly rate. The districts to be given this modern improvement are the following: District No. 340, Canal Farm, Sargent properties, Brack tract, Terminus section, Sargent-Barnhart tract, Rindge Syndicate, Phillips properties and others that will be signed immediately. The distributing system will leave the main tower line at a point above New Hope and make a circuit of many tracts.

OGDEN, UTAH.—We are officially advised that L. B. Spencer, Engr., Ogden, is preparing plans for the construction of a 1,000 HP. power plant to cost $125,000. The plant will be situated 25 miles east of Ogden. Bonds are to be placed on sale shortly.

SASKATOON, SASK.—Bids are asked by J. H. Trusdale, City Clerk, until 5 p. m., April 28, for (a) constructing one brick, steel or concrete smokestack with a height of 100 ft. and inside diameter of 66 ins., together with corresponding smoke connections to boilers; (b) bricking in two 250-HP. Robb Mumford water-tube boilers. E. L. White is Elec. Supt.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

SOLON, ME.—The Legislature has passed a resolution appropriating $20,000 by the State and $5,000 by the County for a bridge between Solon and Embaden.

WATERVILLE, ME.—The Lewiston, Waterville & Augusta R. R. Co. may construct a bridge across the Kennebec River here.

NEW YORK, N. Y.—The Municipal Art Commission has approved designs for a steel bridge, to cost $110,000, consisting of three spans. The two end spans are fixed under girder spans and the central span is of the double-leaf bascule type. The bridge is to be erected on the line of Hunter's Point Ave., over the Dutch Kills, in the Borough of Queens.

HARRISBURG, PA.—The County Commissioners on April 7 opened bids as follows for constructing a concrete arch over Paxton Creek at State St.: Nelson-Merydith Co., of Atlantic City, N. J., $5,994; Stucker Bros., 15 N. Second St., three bids, $7,490 to $8,700; Ferro Concrete Co., Cincinnati, Ohio, $4,595.

BANGOR, PA.—Bids are asked by the County Commissioners, Easton, until 9.30 a. m., April 30, for the construction of a reinforced concrete highway bridge over Brushy Meadow Creek, Bangor. Young & Reese are Engrs., Easton.

*CHESTER, PA.—Bids will be received until 10 a. m., May 6, by the County Commissioners, Media, for laying a brick, or asphalt or concrete pavement on the Shoemakersville bridge crossing Ridley Creek, connecting Nether Providence Township with the city. John S. Kenney is Clk.

DOVER, DEL.—The Legislature has passed the bill authorizing the construction of a drawbridge over the Laurel River.

MARSHALL, N. C.—We are officially advised that the Board of County Commissioners are having surveys made for two steel bridges to be built in Madison County. The surveys will be completed by May 3, on which date the Commissioners will call for bids and set the date of opening same. Dudley Chipley is County Engr.

WOODRUFF, S. C.—Bids are asked until April 24, by D. M. Miles, Supv. Spartanburg County, Spartanburg, S. C., and H. B. Humbert, Supervisor of Laurens County, Laurens, S. C., for building Kilgore, Van Patton and Woodruff bridges.

Bids are also asked until April 23 for building Enoree bridge over Enoree River.

ELLIJAY, GA.—The ROANOKE BRIDGE CO., Roanoke, Va., was awarded contract on April 8 by the county for a bridge over the Ellijay River here.

STARKE, FLA.—The contract for constructing 1,226-ft. steel bridge over the New River, bids opened April 5, has been awarded to the ROANOKE BRIDGE CO., of Roanoke, Va., at $11,950.

HUNTSVILLE, ALA.—The CONVERSE BRIDGE CO., Chattanooga, Tenn., has been awarded contract by the county for the construction of four steel bridges at about $6,000.

HARRISONBURG, LA.—The contract for a steel bridge for Bushley Bayou, near Harrisonburg, has been awarded by the Police Jury to the MIDLAND BRIDGE CO., of Kansas City, Mo., at $18,300. The contract for repair of the steel bridge at Jonesville has been awarded to AUSTEN BROS., of Dallas, Tex., at $4,375. H. W. Bethard is Clk.

CINCINNATI, OHIO.—Bids are asked until noon, April 30, by the County Commissioners, Fred Dreihs, Clk., for a concrete culvert on Springfield road, one mile east of Colerain Pike, near residence of Jacob Runckel, in Colerain Township.

NORTHBEND, OHIO.—Bids will be received until May 7 by the Board of County Commissioners, Cincinnati, Fred Dreihs, Clk., for constructing a concrete bridge on Old State road, Northbend, Miami Township.

DAYTON, OHIO.—The BROOKVILLE BRIDGE CO., of Dayton, has secured the contract for the superstructure of a bridge, at $3,397, and OSCAR PUTERBAUGH contract for substructure at $5.24 per cu. yd. Bids were opened on April 8 by the County Commissioners. E. E. Tunison is Clk.

HAMILTON, OHIO.—Bids are asked until 10 a. m., May 8, by J. E. Brate, County Audr., for erection of bridge substructure and bridge at Alexander farm, near Tallewanda Creek, Oxford Township.

ELKHART, IND.—Bids are asked by the Commissioners of Elkhart County until May 4 for the construction of three large bridges.

ANN ARBOR, MICH.—The TOLEDO-MASSILLON BRIDGE CO., of Toledo, Ohio, has secured contract for constructing five bridges on the Ann Arbor R. R., at about $40,000. Joseph Wanbecq is Res. Engr., Toledo, Ohio.

CHICAGO, ILL.—Bids will be received until April 28 by the Board of Trustees, Sanitary District of Chicago, I. J. Bryan, Clk., for furnishing metal work for superstructure of highway bridges across North Shore Channel located as follows: Howard Ave., Devon Ave., both in Township of Niles; Peterson Ave., Foster Ave. and Argyle St., city of Chicago.

*EVANSTON, ILL.—The NATIONAL CONTRACTING CO., Security Bldg., Chicago, has been awarded contract by the Sanitary District of Chicago for the construction of the substructure of a bridge over the North Shore Channel at the crossing of the Chicago, Milwaukee & St. Paul Ry., near Chancellor St., Evanston, at $18,019. List of bidders noted on April 8.

SUPERIOR, WIS.—Bids will be received until April 30 by the Board of Public Works, John Kummer. Chn., for furnishing material and constructing a bridge across Sheboygan River at Pennsylvania Ave., including bascule span with necessary foundation piers, etc.

FORT DODGE, IOWA.—The city has decided to construct a viaduct at Farley St. Estimated cost, $75,000.

McGREGOR, IOWA.—The Chicago, Milwaukee & St. Paul Ry. Co., it is stated, will construct a bridge here. Estimated cost, $1,000,000.

CARLSBAD, N. MEX.—The Commissioners of Eddy County opened bids on April 5 for three new bridges. The MIDLAND BRIDGE CO. was the lowest of the six bidders and was awarded the contract for a bridge across the Pecos River, near Artesia, at $12,000, another at Carlsbad at $10,000, and the third across Black River near Malaga at $2,700.

COLFAX, WASH.—The contract for constructing a steel bridge over the Pine Creek, bids opened on April 5, has been awarded to JOHN F. ARCHER & CO., of Spokane, at $3,397. William M. Duncan is County Audr.

SAN FRANCISCO, CAL.—The Streets and Finance Committees of the Board of Supervisors decided on April 5 to construct a viaduct across the Mission road, between Bosworth and Marshall Sts. Estimated cost, $225,000.

*GASPE, QUE.—Bids are asked by the New Canadian Co., Ltd., until May 21, for the steel superstructures of 14 bridges and trestles, of a total length of 4,900 ft., which are to be erected on the Atlantic, Quebec & Western Ry., in the district of Gaspe. All bids are to be posted to New Cralisle, Que.

GUELPH, ONT.—Bids will be received until April 24 by James Hutcheon, Engr., Guelph, for constructing a steel bridge, 82½-ft. span, over the River Speed, Township of Puslinch, and concrete abutments for same.

SOURIS, MAN.—Bids will be received by R. Rogers, Minister Pub. Wks., until noon, April 24, for the erection of a two 100-ft. span Howe-Truss bridge on concrete pier and pile abutments.

VANCOUVER, B. C.—Bids are asked until April 24, by G. A. McNichol, Vancouver, Purchasing Agt. Grand Trunk Pacific Ry. Co., for the construction of concrete abutments, piers and pedestals for six steel bridges that will be built this summer on the 100-mile section of the main line between Prince Rupert and Copper River.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

AUGUSTA, ME.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of an extension to the post-office at Augusta, Me., to W. H. FISSELL & CO., St. James Bldg., New York, at $135,418. Time, Aug. 1, 1910.

BOSTON, MASS.—The Boston "Globe" states that Charles H. Waldron intends to construct a theatre to be known as the Waldron Casino. The building will be located on Hanover St., near Tremont St., and will be a fireproof theater, in which no wood work will be employed, floors being of concrete and the frame work of iron and steel. It will have a seating capacity of 2,000. The lobby, or main entrance to the theater will be finished in marble and tile work, and the whole theater will be illuminated with incandescent lights. The auditorium will consist of the orchestra, balcony and gallery, with a modern stage, 40 × 80 ft. There will be retiring rooms for ladies and gentlemen. Ground will be broken about the last of May. C. H. Blackall, 20 Beacon St., Boston, is Arch.

MADISON BARRACKS (Sackets Harbor post-office), N. Y.—Bids are asked until 2 p. m., May 1, by the Constructing Quartermaster, for the construction, including plumbing, heating, electric wiring and electric light fixtures, of one single set of field officers' quarters and one double set of non-commissioned officers' quarters at Madison Barracks, N. Y.

NEW YORK, N. Y.—We are officially advised that plans have been filed and estimates are being taken for a 12-story commercial building, 40 × 143 ft., to be erected for the Building & Engineering Co., 1133 Broadway, William H. Birkmire, Arch., 362 Broadway, to be erected at 928 and 930 Broadway, with an L at 17 East 21st St., at a cost of $300,000.

The Board of Estimate and Apportionment has appropriated $500,000 for building an extension of one wing to the present college buildings of the Normal College at 68th St. and Park Ave. The present appropriation of $500,000 is the first installment of a total of $2,000,000 which will be eventually granted to Normal College, the next installment being expected as soon as the first appropriation has been exhausted. The money will be used to replace the present buildings with modern structures.

Designs for the proposed 22d Regiment armory, to be erected at 168th St. and Fort Washington Ave., at a cost of $595,000, have been approved at a meeting of the Municipal Art Commission, Robert W. De Forest presiding. The building will be of red brick, with Indiana limestone and terra cotta trimmings. Walker & Morris are Archs., 24 East 23d St.

The Commission also approved designs for an addition to the Boys' High School Building, at Putnam and Marcy Aves. and Madison St., Brooklyn, to cost $325,000.

Designs were approved for a single story steel frame freight shed, to cost $212,000, and to be erected on a pier, between 31st and 32d Sts., South Brooklyn.

Bids are asked until 10 a. m., April 30, by Theodore A. Bingham, Police Comr., for furnishing all the labor and furnishings and erecting all the materials necessary to build and complete the new station house and prison for the First Precinct on the ground and premises in the city of New York on Old Slip.

NEW YORK, N. Y.—Bids are asked by John W. Brannan, Pres. Bd. of Trustees, Bellevue and Allied Hospitals, until 3 p. m., May 3, for alterations and repairs to Wards 18-25 and 31 of Bellevue Hospital.

Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 11 a. m., May 3, for alterations, repairs, etc., for Public Schools Nos. 24, 30, 37, 39, 57, 68, 72, 78, 83 and 89, Boro. of Manhattan; for installing heating and ventilating apparatus in new Public School No. 101 on the north side of East 111th St., about 43 ft. west of Lexington Ave., Boro. of Manhattan.

Bids were received as follows on April 19, by C. B. J. Snyder, Supt. of School Bldgs., Dept., of Education, (a) for installing heating apparatus in Public School No. 16, on Wilson St., near Bedford Ave., Boro. of Brooklyn; (b) for installing heating and ventilating apparatus for additions to and alterations in Public School No. 84, on the south side of Glenmore Ave., between Watkins St. and Stone Ave., Boro. of Brooklyn; (c) for installing heating and ventilating apparatus for additions to and alterations in Public School No. 87, on the westerly side of Washington Ave., between Pulaski and Lafayette Sts., Middle Village, Boro. of Queens: D. J. Rice, 103 Park Ave., (a) $13,654, (c) $24,868; James Curran Mfg. Co., 512 West 36th St., (a) $15,900, (b) $71,300,

(c) $28,000; E. M. Rutzler Co., 127 White St., (a) $13,932, (b) $69,158, (c) $23,704; Raisler Heating Co., 1966 Broadway, (a) $15,085, (b) $69,430, (c) $26,290; Frank Dobson Co., 319 East 53d St., (a) $14,400, (b) $71,850, (c) $24,400; H. L. Philp, 126 East 120th St., (a) $15,657, (c) $25,777; W. J. Olvaney, 177 Christopher St., (a) $15,774, (b) $71,552, (c) $25,490; Blake & Williams, 211 West 20th St., (a) $14,573, (b) $65,888, (c) $22,270; Gillis & Geoghegan, 537 Broadway, (a) $14,380, (b) $68,740, (c) $23,840.

WEST POINT, N. Y.—Major J. M. Classon, Jr., Q. M., West Point, advises us that the contract for constructing the proposed riding hall was awarded to J. E. & A. L. PENNOCK, Land Title Bldg., Philadelphia, Pa., on April 12. Following are the bids received for this work on Feb. 24, with estimated cost and commission: James Stewart & Co., $620,000, 5½%; Hedden Constructing Co., $653,000, 5½%; George A. Fuller Co., Fuller Bldg., New York, $610,000, 6%; J. E. & A. L. Pennock, $538,800, 6 3/10%; Whitney-Steen Co., $516,826, 6½%; A. B. Stannard, St. James Bldg., New York, $665,233, 4½%; J. V. Schaefer, Jr., & Co., $528,549, 6% (no heating, plumbing or electric work); Thompson-Starrett Co., $594,700, 7½%; J. W. Bishop Co., $620,200, 6%; C. T. Wills, $630,195, 6½%; Penn Bridge Co., $566,700, 11%.

Structural steel only.—Penn Bridge Co., $93,410, 9%; McClintick-Marshall Construction Co., $63,200, 16½%; American Bridge Co., $74,600, modified plan; $67,000, revised plan with monitors; $69,600, revised plant with skylights; C. O. Brown, $86,500; $69,478, modified plan; $91,300, revised plan; A. C. Smith, $10,384, heating only.

BUFFALO, N. Y.—We are officially advised that Norris Morey, 807 D. S. Morgan Bldg., will erect a 3-story and basement 6-family apartment house, 64 × 96 ft., on Oakland Pl., of brick and stone. Cost, $40,000. H. Osgood Holland, Arch., 417 Mutual Life Bldg., who has completed plans, advises us that the letting of contracts is held in abeyance.

The Hamlin Realty Co., William Hamlin, Pres., 1118 Prudential Bldg., will erect for M. Wile & Co., wholesale clothiers, a 6-story and basement fireproof warehouse and manufacturing building, 60 × 185 ft., of brick and steel construction, at Swan and Ellicott Sts. Bethune, Bethune & Fuchs, 215 Franklin St., are Archs.

BUFFALO, N. Y.—Green & Wicks, Archs., 110 Franklin St., are completing plans for a storage warehouse, 40 × 132 ft., six stories high and of fireproof brick, structural steel and concrete construction. It is to be erected at 220-224 Niagara St., by the Niagara Storage Warehouse Co., O. L. Snyder, Pres., 1012 Mutual Life Bldg.

LIBERTY, N. Y.—The plans of S. O. and H. A. Lacey, Archs., Binghamton, N. Y., have been adopted for erecting a $60,000 school building at Liberty. The building will be a grammar school and academy combined. It is to be a 3-story brick, grouped in the form of the letter U, consisting of the main structure in the center, with wings on each side. The building will seat 150 pupils in the academical portion, and 600 in the grammar department.

PHILADELPHIA, PA.—The Philadelphia & Reading Ry. Co. is preparing plans for a 5-story fireproof office building to be erected at Ninth and Spring Garden Sts. The building will be erected on the lot to the westward of Spring Garden St. station and extending from Spring Garden to Green Sts. and the railroad and Percy St. It will front 60 ft. on Spring Garden St. and extend to Green St., a depth of 250 ft. The building will be slightly irregular in shape to conform with the topography of the lot. William Hunter, Philadelphia, is Ch. Engr.

The contract to erect the $60,000 church and Sunday-school building for the Westminster-Greenway Presbyterian Church, at the southwest corner of 58th St. and Chester Ave., has been awarded to ALEXAN[illegible] CHAMBLEY, 243 South Tenth St. The plans were prepared by George E. Savage, Arch., Fourth and Chestnut Sts. The church will be built of stone, two stories high, and will measure 100 × 135 ft.

PITTSBURG, PA.—We are advised by J. G. Chalfant, County Engr., this city, that an addition to be built to the Allegheny County Jail here is being considered. The present annex and the Pittsburg Academy building will be torn down in the spring, and the new structure, which will be either six or eight stories in height, will occupy the site. The building complete will cost about $250,000, and will be built of granite, concrete, steel and brick. It will have electric elevators, high-class plumbing and steam heating systems and marble corridors. The heat and light will be supplied from the central steam and electric plant in the present buildings.

BALTIMORE, MD.—The Pennsylvania R. R. Co. has conferred with the Municipal Commission and outlined a plan for construction of proposed union station. The plan involves alteration of Maryland Ave. and Charles St. bridges and construction of another span to Charles St. bridge. The station is to include overhead approaches to tracks and passenger elevators, main waiting room on street level, etc. The building is to be of colonial design and will cost over $1,000,000; other improvements will cost over $1,000,000. James McCrea is Pres.; A. C. Shand is Ch. Engr., Broad St. Station, Philadelphia.

Charles H. Gerwig, Fidelity Bldg., has had plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for nine dwellings to be built on Orem Park Pl. The buildings will be three stories high, of brick, 17 × 70 ft., colonial style, with porch and bay windows. Cost $60,000.

Union Hotel Co. has awarded contract to J. ELMER STANFIELD, of Thomas B. Stanfield & Son, 109 Clay St., Baltimore, for enlargement of Hotel Caswell, Baltimore and Hanover Sts. Four additional stories will be erected on annex, which adjoins main building, making it seven stories high. This addition will provide 48 sleeping rooms and 24 baths. Cost, $60,000. John R. Forsythe, 232 St. Paul St., Baltimore, is Arch.

BALTIMORE, MD.—In last week's issue the proposed Protestant Episcopal Cathedral was erroneously noted under Norfolk, Va.

WASHINGTON, D. C.—J. E. & A. L. Pennock, Land Title Bldg., Philadelphia, have posted plans by Nathan C. Wyeth, 1517 H St., N. W., Washington, for estimates on a residence on Massachusetts Ave., Washington, D. C., for Gibson Fahnestock. The structure, which will have four stories, with a basement and attic, 42 × 92 ft., with French Renaissance style. It will be of brick with limestone trimmings and fireproof construction. It will cost about $100,000.

WASHINGTON, D. C.—Bids were received as follows on April 19, by the Commissioners of the District of Columbia for the construction of an 8-room school building: Burgess & Parsons, 1417 G St., N. W., $57,979; Robert T. Humphrey, Fourth and M Sts., S. E., $58,200; Joseph H. Gibbons, 1314 North Carolina Ave., N. E., $58,700; James M. Dunn, Flagler St., between U and V Sts., N. W., $55,600; Newman & Smith, Colorado Bldg., $60,500; Thompson Starrett Co., Commercial National Bank Bldg., $61,950. All bidders of Washington, D. C.

NORFOLK, VA.—Bids were received on April 10 at the office of B. F. Mitchell, Arch., for the construction of the Norfolk & Southern R. R. Co.'s office building and freight sheds. Following are the bids received for (a) office building, (b) freight sheds, (c) both: John Monk, (a) $73,937, (b) $61,428, (c) $135,363; West Richardson, of Hampton, Va., (a) $71,723, (b) $52,504, (c) $124,224; Myers-Turpin Construction Co., (a) $79,639, (b) $63,792, (c) $143,556; D. J. Phipps, (c) $143,000; Central Carolina Construction Co., Greensboro, N. C., (a) $64,083, (b) $64,850, (c) $128,933; E. Tatterson, (a) $85,086, (b) $60,041, (c) $145,123; J. D. Anders, (a) $77,397, (b) $65,757, (c) $143,154; S. J. Prescott, (a) $92,584; George T. Banks, (a) $76,980, (b) $65,455, (c) $142,425; C. R. Parlett, (a) $74,465, (b) $68,184, (c) $143,149; P. Farrell, (a) $85,300, (b) $81,600, (c) $176,900; A. M. Walkup, Richmond, (c) $145,900; McCoy & Brooks, (a) $120,803, (b) $58,050, (c) $178,853; Baltimore Ferro Concrete Co., (a) $77,480, (b) $70,414, (c) $147,894; McDermott Construction Co., (b) $83,990; Specialty Construction Co., (b) $76,389; Thompson-Starret Co., Washington, D. C., (c) $135,700; McLean Construction Co., Baltimore, (a) $91,409, (b) $55,290, (c) $146,699; J. Henry Miller, Baltimore, (a) $79,870, (b) $67,867, (c) $147,737; Henry Monk, (a) $77,000, (b) $63,000, (c) $140,000; Mitchell Bros., Philadelphia, Pa., (a) $74,567, (b) $70,108, (c) $144,675. The buildings are to be erected on Water St., almost directly back of the Custom-house and will be five stories in height with an ornamental front of brick and terra cotta and of fireproof construction.

FAYETTEVILLE, N. C.—Bids were received as follows on April 15 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Fayetteville, N. C.: Johnson & Matthews, Florence, Ala., $49,460; Central Carolina Construction Co., Greensboro, N. C., $49,252; King Lumber Co., Charlottesville, Va., $46,818; Norman Underwood, Durham, N. C., $50,165; D. J. Phipps, Newport News, Va., $48,367; George Leigh & Bro., Louisa, Va., $49,071; Joseph Seay & Co., Petersburg, Va., $48,745; Gude & Co., Atlanta, Ga., $52,700; Holliday & Crouse, Greensboro, N. C., $40,425; Blue Ridge Construction Co., Asheville, N. C., $46,250; John A. Carter Co., Philadelphia, $49,860.

HARTSVILLE, S. C.—J. L. Coker & Co. is having plans prepared by Wilson, Sompayrac & Urquhart, Columbia, S. C., for a department store. It will be a 1-story building, approximately 150 × 200 ft. Cost, $50,000. Plans are to be completed in about 30 days.

SUMTER, S. C.—Bids were received as follows on April 19 at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Sumter, S. C.: George W. Waring, Columbus, S. C., $57,427; John A. Custer Co., Philadelphia, $53,700; Simons, Mayrant Co., Charleston, S. C., $58,589; George A. Clayton, Atlanta, Ga., $52,352; D. J. Phipps, Newport News, N. J., $52,797; King Lumber Co., Charlottesville, Va., $52,871; Miles & Bradt, Atlanta, Ga., $56,800; Blue Ridge Construction Co., Asheville, N. C., $56,773; Joseph Seay & Co., Petersburg, Va., $52,500; Gude & Walker Atlanta, Ga., $55,530; Central Carolina Construction Co., Greenboro, N. C., $53,600; Johnson & Matthews, Florence, Ala., $59,830; Frost & Dalton, Asheville, N. C., $54,106. March 31, 1910.

GRIFFIN, GA.—Griffin Realty Co. will erect a combination hotel, office and business structure, 150 × 210 ft. It will have stores covering 150 ft. Cost, $100,000. Architect has not been definitely selected. J. W. Gresham is interested.

MERIDIAN, MISS.—The Scottish Rite Masons are having plans prepared by P. J. Krouse, of Meridian, for a cathedral of English Gothic style, with flat arches and lintels, battlements and mullioned windows, dark red vitrified brick, with white stone trimmings. There will be a basement under the entire building to contain swimming pools, shower baths, gymnasium, etc. Cost, $75,000.

RUSTON, LA.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Ruston, La., to the M. S. HASIE CONSTRUCTION CO., of Dallas, Tex., at $46,050. Time, March 31, 1910.

NASHVILLE, TENN.—The Parkes Building Co., incorporated with $80,000 capital stock by George S. Parkes, Thomas Parkes, Jr., Paul Roberts, F. M. Smith and others, will erect an office building for physicians. It will have six stories; frontage of 50 ft.; depth 114 ft. and will contain 70 offices, each with reception room and bath. Construction will be of reinforced concrete and steel with cut stone and ornamental brick front and marble entrances, elevators, independent machinery for operating electric and heating plant, complete electrical appliances for use of occupants, gas for machines and chemical laboratories, hot and cold water, etc.

Johnson Bransford, President Bransford Realty Co., and Robert Lusk, contemplate erecting an apartment building, five stories high, 100 × 400 ft. It is to be probably 250 ft. long, with heat, lights, water, elevator service, refrigeration plant. Cost, $200,000.

INDIANAPOLIS, IND.—The Board of Public Works has let a contract for the construction of a city hall to the WESTLAKE CONSTRUCTION CO., 717 Locust St., St. Louis, at $510,400. The plumbing contract was let to the INDIANAPOLIS PLUMBING & HEATING CO., at $8,500. The contracts for heating and electric wiring and fixtures are not yet awarded.

SEYMOUR, IND.—An appropriation of $100,000 has been made for the construction of a Federal building in this city.

LEBANON, IND.—The County Council has appropriated $250,000 for construction of a court-house. The commissioners of Boone County will ask for bids as soon as plans are approved.

RICHMOND, IND.—The School Board has awarded a contract for the construction of a high school building to ENGLISH & BROTHER, Champaign, Ill., at $124,000. There were 18 other bidders.

MUNCIE, IND.—The School Board is considering plans for erection of a high school building on the site of the building condemned by the State Board of Health.

INDIANAPOLIS, IND.—The School Board has approved the plans for three new school buildings. Estimated cost, $25,000, $50,000 and $65,000, respectively. Bids will be received soon. The School Board is preparing to ask for bids for the construction of four branch library buildings. Estimated aggregate cost, $120,000.

REDKEY, IND.—The Trustees of the Free Methodist Church have ordered plans for the construction of a church. Frank Driscol is Chn.

SHENANDOAH, IOWA.—Bids are asked until 3 p. m., May 20, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Shenandoah, Iowa.

ST. PAUL, MINN.—The following contracts have been let by the Junior Pioneers' Association, Edward Dahl, Secy., St. Paul, for construction of a pressed brick and cut stone club house on Ninth and Exchange Sts.: General contract, to OLAF HOLM, Goodrich Ave.; heating, to SPRIGGS & LOEFFELHOLZ, 73 West Fourth St.; Plumbing, to CHARLES SCHILLER, 315 Robert St.; electric work, to ELECTRIC CONSTRUCTION CO., 183 East Fourth St. Cost, $40,000.

ST. PAUL, MINN.—C. H. Johnson, Arch., Manhattan Bldg., City, has awarded the contract for the general construction of a pressed brick and cut stone residence for John R. Mitchell, Pres. of the Capital National Bank, on Summit Ave., to the GEORGE J. GRANT CONSTRUCTION CO., 709 New York Life Bldg., St. Paul. Cost, $40,000.

PITTSBURG, KAN.—Bids were received as follows on April 14, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Pittsburg, Kan.: Northern Construction Co., Milwaukee, Wis., $94,000; F. H. Latimer, Kansas City, Mo., $97,331; Deiter & Wenzel Co., Wichita, Kan., $74,405; J. A. Daly, Nevada, Mo., $87,880; Interstate Construction Co., Saginaw, Mich., $75,040. Time, May 31, 1910.

HURON, S. DAK.—The general contract for the construction of the proposed Masonic Temple has been let by Buechner & Orth, Archs., Manhattan Bldg., St. Paul, Minn., to FRANK JAEHN, of Springfield, Minn. Cost, $50,000.

ABERDEEN, S. DAK.—Bids are asked by F. H. Ellerbee, Arch., 649 Endicott Bldg., St. Paul, until noon, May 3, for the general construction of a 6-story pressed brick and cut stone bank and office building to be built here. It will have steam heating, electric lighting, electric passenger elevators and modern plumbing, and tile and marble work. C. A. Russel, City, is Pres. Cost, $125,000.

KEARNEY, NEB.—Bids were received as follows on April 20 at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Keaney, Neb.: McHenry Beatty Co., East Liverpool, Ohio, $102,000; J. H. Wiese, South Omaha, Neb., $103,230; Northern Construction Co., Milwaukee, Wis., $107,000; North-Western Construction Co., Wahpeton, N. Dak., $89,000; Interstate Construction Co., Ltd., Saginaw, Mich., $97,072; J. W. Miller, St. Paul, Minn., $106,680. Time, May 31, 1910.

DALLAS, TEX.—The R. E. Adams Realty Co. is considering erection of a warehouse to have three stories, reinforced concrete and steel construction. The building will be 200 × 200 ft. Cost, $200,000.

HOUSTON, TEX.—The Knights of Pythias will erect a lodge building, to cost $75,000. Jesse C. Dudley, Chn. of Com.

OKLAHOMA CITY, OKLA.—Bass & Harbour have awarded contract to H. ELLENBERGER & CO., of Oklahoma City for erection of an office building to have eight stories and basement. The structure will be 40 × 140 ft., fireproof, with white tile-brick front, trimmed with green shadings and cornice work, 200 rooms, each suite to have individual lavatory and st[illegible]ary washstands. Halls and floors are [illegible] be of marble and white tiling. There w[illegible] be installed two passenger elevators, stea[illegible]eating and ventilating equipments, ele[illegible] lighting. Cost, about $150,000. Layton, [illegible]h & Haws of Oklahoma City are Archs.

TACOMA, WASH.—Samuel [illegible]ns is contemplating the erection of a [illegible]roof office building on the property near [illegible]venth St. on the upper side of Pacific [illegible]. The proposed structure will be twe[illegible] stories in height and will have a front[illegible] of 125 ft. and will run through to Comm[illegible] St. The building will cost from $550,0[illegible] $600,000.

SPOKANE, WASH.—The [illegible]ouse & Realty Co. will erect a 4-story [illegible], which, together with the cold storage [illegible] now in course of construction, will cost [illegible]t $425,000.

D. H. Burnham & Co., Archs. [illegible] Merchants' Exchange Bldg., San Francisco [illegible]ve been retained to prepare plans for [illegible] banking building for the Old National [illegible], Spokane. J. W. Toohey, Pres. Cost [illegible]

LOS ANGELES, CAL.—A 7-sto[illegible] building, to cost $175,000, is to be erected [illegible] 724-732 South Broadway by P. M. Johns[illegible] and Mrs. Clara Burdette. The building wi[illegible]e occuped by Barker Bros., furniture d[illegible]s, who have leased the property for a pe[illegible] of ten years. Excavation for the foun[illegible]n has been started and the building co[illegible]ts will be let soon. The building is t[illegible] completed by Oct. 1. Mr. Johnson o[illegible] 50 ft. frontage on Broadway, while Mrs. Burdette owns the adjacent 60 ft. The prop[illegible]ies are 150 ft. deep and the building will [illegible]ver the entire area. R. B. Young, Arch., Lankersham Bldg., has drawn the plans, and it is announced that the building will be fireproof and of Class B construction.

REDLANDS, CAL.—Contract for first building of University of Redlands was awarded to J. F. ATKINSON, Byrne Bldg., Los Angeles. The building will be of reinforced concrete and will cost about $85,000.

*EUREKA, CAL.—Bids are asked until 3 p. m., May 24, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for construction complete of the U. S. post-office and custom-house building at Eureka, Cal.

FORT DOUGLAS (Salt Lake City post-office), UTAH.—Bids are asked until 10 a. m., April 23, by Capt. T. R. Harker, Constr. Q. M., for the construction, plumbing, heating, electric wiring, etc., for two double barracks, one band barrack and one ordnance storehouse at Fort Douglas, Utah.

TORONTO, ONT.—Plans are being prepared for the erection of a $2,000,000 hotel here at once. H. M. Deyo of New York and Col. H. W. Pratt, of Boston, Mass., are interested.

PORT ARTHUR, ONT.—The School Board has decided to build a collegiate institute to cost $65,000.

WINNIPEG, MAN.—Plans have been completed for a warehouse to be erected here for the T. Eaton Co. Cost, $60,000.

H. M. Millman, McIntyre Block, has completed plans for a business and apartment block to be erected on River Ave., to cost $60,000.

WATER SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

AGAWAM, MASS.—The citizens voted on April 5 to instruct the Water Commissioners to secure estimates for a water supply system in Feeding Hills, or elsewhere, supplementary to its present system, and to consult with the Water Commissioners of Springfield with regard to purchasing water from that city. Report to be submitted on June 12.

NEW YORK, N. Y.—Bids were received as follows on April 14 by John H. O'Brien, Comr. Water Supply, Gas and Electricity, for furnishing and delivering valves: Charles T. Henry Co., $30,119; McMahn & Taylor, $36,286; Chapman Valve Co., $33,830; Rensselear Mfg. Co., $33,890; Darling Pump Co., $37,060; Kennedy Valve Co., $31,505; Nelson Valve Co., $33,290; Thomas J. Radley, $34,675; Crane Co., $37,598; John Fox & Co., $46,595; M. J. Drummond, $35,880.

Bids were also received same date for furnishing and delivering drive well pipe: E. P. Keating, 446 Water St., $20,551; John Simmons Co., $24,085; M. J. Drummond & Co., $22,820.

The Board of Water Supply has awarded contract, bids opened March 30, to CHARLES W. BLAKESLEE & SON, New Haven, Conn., for contract No. 25, for the construction of Croton and Chadeayne tunnels, Kitchawan and Millwood North cut-and-cover in the Croton division of the Catskill Aqueduct in the towns of Yorktown and New Castle, Westchester County, at $1,269,830. List of bidders noted on April 1. Itemized bids are given under Contract Prices in this issue for contracts Nos. 17 and 18 and No. 46.

NEW YORK, N. Y.—Bids are asked until 2 p. m., April 29, by John H. O'Brien, Comr. Water Supply, Gas and Electricity, for furnishing, delivering and laying water mains in Anderson, Bainbridge, Creston, Eastburn, Tremont and Summit Aves.; in 170th, 174th and 204th Sts.; in Kingsbridge Road, Mosholu Parkway and Parkside Place, Borough of the Bronx; for making necessary alterations and improvements in the high pressure fire hydrants in the Borough of Manhattan, and to furnish and deliver all the materials and furnish all the labor required for that purpose.

SYRACUSE, N. Y.—The United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York, was the only bidder on April 12 for pipe and fittings to be used by the Bureau of Water in the University Heights high pressure line, at $22.40 a ton for all sizes and 24 cts. per lb. for special castings. The specifications call for 1,500 ton of 20-in. pipe, 240 tons of 12-in., 20 tons of 18-in. and three tons of 8-in. pipe and 50,000 lbs. of castings.

Pierce, But[illegible] & Pierce, of Syracuse, were low bidders [illegible] furnishing lead pipe to the Bureau of W[illegible]er at $4.61 per cwt. The quantities as[illegible] for were 70,000 lbs. of ½-in. 5,000 lbs. [illegible]-in. and 1,000 lbs. of 2-in. Pierce, Butl[illegible] & Pierce were also low bidders for furnishi[illegible],000 curb boxes and 200 curb box extensi[illegible] Henry C. Allen is City Engr.

SOMERV[illegible], N. J.—We are officially advised tha[illegible] AMERICAN WATER SOFTENER CO.[illegible]1 Chestnut St., Philadelphia, has contrac[illegible] install for J. B. Duke, Duke's Farm, Som[illegible]ille, a 10,000,000-gallon filtration plan[illegible]onsist of 20 of the company's standard [illegible] diameter by 20 ft. long horizontal pre[illegible] filters.

LANCAS[illegible], PA.—Bids will be received until April [illegible] by the Water Committee at the office [illegible] H. Rathfon, City Controller, for the f[illegible]wing supplies as may be required to [illegible] 1, 1910: American lead; 4 to 24-in. pipe[illegible] ¼ and 1-in. brass ferrules; fire hydra[illegible] 4 to 24-in. stop valves; special castings; [illegible]er meters; hauling of pipes, etc.; digg[illegible] out and backfilling in all trenches of [illegible]ter pipe.

JOHNSTOWN, PA.—Plans for the construction of a [illegible]ge reservoir on Salt Lick are nearly com[illegible]ted. Estimated cost, $100,000.

*PHILADELPHIA, PA.—George R. Stearns, Dir. Pub. Wks., has awarded contract to the MILLARD CONSTRUCTION CO., Pennsylvania Bldg., Philadelphia, at $1,832,000, for the Queen Lane filtration plant. List of bidders noted last week.

BRIDGEVILLE, DEL.—The State Legislature has passed the bill authorizing this city to issue bonds for water-works and a sewerage system.

DELMAR, DEL.—A bill has been passed by the State Legislature providing for the construction of water-works here.

OAKLAND, MD.—The Town Council on April 5 awarded contract for reservoir, water-works and sewerage system to WILLIAM TUNNY, of Joliet, Ill., at $31,784.

CLEARWATER, FLA.—Bids will be received by the Town Council until April 26 for construction of water-works and sewers, to include a steam or gasoline plant. The Holmboe Co., of Louisville, Ky., are Engrs.

JACKSONVILLE, FLA.—The following bids were opened on April 5 by the Board of Bond Trustees for two 4-stage centrifugal pumps—(a) 2,000 gallons capacity per min.; (b) 2,500 gallons: D'Olier Engineering Co., Philadelphia, Pa., (a) $8,300, (b) $8,400; Snyder Pump & Well Co., Richmond, Va., (a) $7,901, (b) $7,077; Alberger Pump Co., New York, N. Y., (a) $8,520, (b) $9,088; Fred M. Prescott Pump Co., Milwaukee, Wis., (a) $7,670, (b) $9,200; De Laval Steam Turbine Co., Trenton, N. J., (a) $8,700, (b) $9,750; Buffalo Steam Pump Co., Buffalo, N. Y., (a) $9,420, (b) $9,980; R. D. Wood & Co., Philadelphia, Pa., (a) $8,650, (b) $10,000; Dayton Hydraulic Co., Dayton, Ohio, (b) $10,475; ALLIS-CHALMERS CO., Milwaukee, Wis., (a) $8,942, (b) 10,678 (awarded contract); Platt Iron Works, Atlanta, Ga., (b) $10,840; Atlantic Hydraulic Machinery Co., New York, N. Y., (a) $10,500, (b) $13,500; Southern Hydraulic Engineering Co., Atlanta, Ga., (a) $6,414, (b) $6,680; Fore River Ship Building Co., Quincy, Mass., (a) $7,636, (b) $8,276; H. R. Worthington, Atlanta, Ga., (a) $7,978, (b) $8,920.

MERIDIAN, MISS.—The Meridian Water-Works Co., it is stated, will construct a 500,000,000-gallon reservoir west of the present reservoir. W. F. Wilcox is Supt.

NASHVILLE, TENN.—The Board of Public Works on April 8 awarded contract for laying 23,046 ft. of water main in various streets in Eastland and Lockeland, East Nashville, to SULLIVAN & HAGGERTY at $5,811. Other bids received were: E. T. Lewis Co., $6,643; David Grewar, $6,628; John Broderick, $6,077.

SWANTON, OHIO.—The contract for constructing water-works, bids opened on April 6, has been awarded to YOUNG & GRAY, of Toledo, Ohio, at about $10,268. W. D. Elwell is Village Clk.

SOUTH BEND, IND.—The following bids were opened on April 9 by the Board of Public Works for a reinforced-concrete reservoir of 1,000,000-gallons capacity: Hoban & Roach, South Bend, $26,405; Nolf & Fellows, Kalamazoo, Mich., $20,000; E. Berner & Co., South Bend, $19,200; Union Engineering & Construction Co., Chicago, Ill., $19,000; H. N. BARNES, South Bend, Ind., $14,390 (awarded contract). A. J. Hammond is City Engr.

EVANSVILLE, IND.—Frank N. Spencer, Engr., Toledo, Ohio, is preparing plans for an extensive filtration plant here. Estimated cost, $1,000,000.

LYONS, IND.—George C. Morgan, 169 Jackson Boulevard, Chicago, Ill., is preparing plans for the proposed water-works. Estimated cost, about $10,000.

BLUE ISLAND, ILL.—Bids will be received until April 29 for a reinforced-concrete reservoir, a steel tank and a well. John W. Alvord and Charles B. Burdick, Hartford Bldg., Chicago, are Engrs.

OTTAWA, ILL.—Bids will be received by the City Clerk until 5 p. m., April 27, for furnishing and laying, including the necessary trenching and back filling of about 1,400 ft. of 4-in. standard c.-i. water-pipe weighing 22 lbs. per ft., with two 6 x 4 specials, two 4-in. gate valves with the necessary street boxes and two fire hydrants of the pattern now in use in the city. Bids will be received for the whole of the work complete including furnishing materials or for the trenching and back-filling, the city to furnish all material and do the laying.

RICHLAND CENTER, WIS.—The contract for furnishing and laying about 5,000 ft. of c.-i. pipe, etc., bids opened on April 9, has been awarded to U. S. CAST IRON PIPE CO., Rookery Bldg., Chicago, Ill. W. G. Kirchoffer, of Madison, is Engr.

FOND DU LAC, WIS.—The Fond du Lac Water Co. will make improvements costing $12,000 during this season. A Byron-Jackson pump of 1,000,000 gallons capacity daily will be added. The 6-in. well will be enlarged to 16 ins. and an 80-HP. engine, with generator to provide power for two deep well pumps will be installed.

*PLANKINTON, S. DAK.—Bids are asked by E. F. Mackey, City Audr., until 8 p. m., May 10, for furnishing and delivering necessary material and labor required to construct and complete a water-works system.

ATLANTA, TEX.—The citizens have voted to issue $15,000 of bonds for water-works. The engineer has not yet been selected.

DALLAS, TEX.—The citizens on April 6 voted to issue $500,000 of bonds for the construction of a reservoir in the White Creek bottoms east of city to store 6,000,000,000 gallons of water.

MINCO, OKLA.—See item under Light and Power Plants.

ANTONITO, COLO.—MARSHALL BROS., of Las Animas, have secured contract for pipe line for the proposed water-works for town at $16,122, bids opened on April 7. AUGUST WISSMATH has been awarded contract for reservoir at $2,400.

GREELEY, COLO.—L. T. Davis will build the Davis reservoir east of here. It will have a capacity of 4,500,000 cu. ft. and will draw water from the South Platte River through the Fulton ditch.

LAS ANIMAS, COLO.—Bids will be received until April 27 at the Bureau Supplies & Accounts, Navy Department, Washington, D. C., for furnishing material and installing extensions to water and sewer systems at the U. S. Naval Hospital, Las Animas, as per Schedule 1060.

TACOMA, WASH.—H. J. McGregor, Comr. Pub. Wks., on April 5 awarded contract for constructing the 500,000-gallon standpipe to be built on Fletcher Heights to the NORTHWEST BRIDGE CO., Tacoma, at $12,503.

SALT LAKE CITY, UTAH.—Bids will be received until April 30 by the Board of Public Works, H. G. McMillan, Chn., for constructing a screening tank and house at the head of the 20th ward pipe line in City Creek canyon. Louis C. Kelsey is City Engr.

*TORONTO, ONT.—Bids are asked by the Board of Control until noon, May 18, for the supply of material and the construction of the necessary works in connection with a water filtration plant for the city. Joseph Oliver is Chn. Bd.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

NORTH ANDOVER, MASS.—Ernest W. Bowditch Engr., 60 Devonshire St., Boston, Mass., advises us that the following bids were received on April 15, for constructing sewers at North Andover. Andrew W. Byrne & Co., 161 Devonshire St., Boston, $17,084; T. Bruno, 76 Vane St., Revere, Mass., $20,318; W. B. Byrne, $19,524; John H. McCusker, 62 Church St., Waltham, Mass., $19,916; Coughlan & Shiels Co., 43 Tremont St., Boston, $26,234; Cenedella & Co., Milford, Mass., $18,424; Charles G. Craib, 249 Pleasant St., Winthrop, Mass., $16,056; Antonio G. Tomasello, 69 Gibson St., Dorchester, Mass., $19,897; Edward B. Roberts, Old South Bldg., Boston, $19,401; Byrne Contracting Co., 46 School St., Boston, $17,325; Frank H. Cowin Co., 184 Summer St., Boston, $23,748; John J. Falvey, 15 Rush St., Somerville, Mass., $23,501; Henry Spinach Contracting Co., Waterbury, Conn., $23,178; C. E. Trumbell Co., Tremont Bldg., Boston, $16,820; John F. Gill Co., Winter Hill, Mass., $17,375; Michele Russo & Son, 240 North St., Boston, $16,741.

NEW YORK, N. Y.—Bids are asked by John F. Ahearn, Pres. Boro. of Manhattan, until 2 p. m., April 28, for constructing sewers, receiving basins and appurtenances in several streets.

BROOKLYN, N. Y.—Bids are asked by Bird S. Coler, Pres. Boro. of Brooklyn, until 11 a. m., April 28, for constructing sewers and sewer basins in various streets.

UTICA, N. Y.—The Board of Estimate has directed the City Engineer to prepare plans for the Highland trunk sewer northerly from the New York Central & Hudson River R. R. to Mohawk River.

*WATERTOWN, N. Y.—W. J. SEMPER, of Watertown, has been awarded contract for constructing the western outfall sewer, bids opened March 30, using reinforced concrete pipe of the Reinforced Concrete Pipe Co., of Jackson, Mich., at the following prices: 2,800 lin. ft. 36-in. reinforced-concrete tile, $8.33; 2,600 lin. ft. 33-in., $5.39; 1,760 lin. ft. 30-in., $3.05, and 2,264 lin. ft. 27-in., $2.56; 100 lin. ft. 6-in. house connections, 35 cts.; 350 6-in. Y's in concrete, 8 cts.; 350 6-in. slants, 18 cts.; 350 6-in. Y's, vitrified, $4.80; 16 manholes, $80; six lampholes, $16; 10 M. ft. timber and plank, $30; 1,000 cu. yds. extra concrete, $4.97; 100 cu. yds. extra earth excavation, 68 cts.; 100 cu. yds. extra rock excavation, $3.25. The earth excavation throughout entire length of sewer consists of sand saturated with water below a depth of three or four feet. The lower half of sewer, where 36 and 33-in. pipes are to be laid, is underlaid with Black River limestone, some of which must be excavated. The average cut for the 36-in. sewer is about 8 ft., of which about 3 ft. is rock, and for the 33-in. average cut is about 8 ft., of which about two feet is rock. The 30 and 27-in. will average about a 10-ft. cut, with no rock. Sand for concreting will be excavated along the route of sewer and some of the stone excavated will be crushed. E. W. Sayles is City Engr.

BEDFORD, PA.—We are officially advised that plans have been completed for a complete system of sanitary sewers, consisting of about eleven miles of pipe sewers, varying in size from 6 to 18 ins., and for a sewage disposal plant to consist of a septic tank and sprinkling filters. Charles E. Collins, Drexel Bldg., Philadelphia, is Engr.

PHILADELPHIA, PA.—Bids are asked by the Department of Public Works until noon, April 27, for Schedule A, main sewers, and Schedule B, branch sewers. George R. Stearns is Dir. Pub. Wks.

Hering & Fuller, 170 Broadway, New York, have been engaged by the city for the proposed sewage disposal plant.

MANNING, S. C.—Bids are asked until April 29 by the city for the construction of a sewerage system. Lee & McLellan, of Sumter, are Consult. Engrs.

MOBILE, ALA.—Bids will be received by the Board of Public Works, J. T. Schley, Pres., until May 12 for constructing storm sewers to comprise 33,000 lin. ft. of pipe, 10 to 30 ins. in diameter, and 30,000 lin. ft. 6-in. house connections, etc. Wright Smith is City Engr.

ENSLEY, ALA.—The City Council has adopted a resolution, providing for an election to vote on issuing $60,000 bonds for sanitary sewers.

*LOUISVILLE, KY.—Bids are asked by the Commissioners of Sewerage until noon, April 30, for the construction of the Oak St., Broadway, Bismarck Ave., sewers, and for Section E of the Beargrass intercepting sewer, Contracts Nos. 32, 33, 34 and 35, respectively, of the comprehensive system of sewerage for the city. J. B. F. Breed is Ch. Engr.

MT. STERLING, KY.—We are officially advised that the Sewer Committee has engaged Charles E. Collins, Drexel Bldg., Philadelphia, Pa., to prepare plans, estimates, etc., for a complete sanitary sewer system and sewage disposal plant. There will be about twelve miles of sewers, a septic tank and contact beds or sprinkling filters. Bids will probably be asked in July. C. W. Harris is Mayor; W. C. Hamilton, Chn. Sewer Com.

EATON, OHIO.—The contract for the construction of the sewage disposal plant was awarded on April 6 by the Council to E. M. GEPHART & CO., at $11,786.

CINCINNATI, OHIO.—Bids will be received until April 27 by the Board of Public Service, John J. Wenner, Clk., for furnishing material and constructing sewers and drains in Erkenbrecher, Wilson, Hearne and Elland Ave. and right-of-way west of Burnet and south of Erkenbrecher Ave. Estimated cost, $5,296.

*OXFORD, OHIO.—We are officially advised that bids were received as follows on April 9 by the Village Council for a sewage disposal plant: F. M. Benner & Co., Marion, Ind., $15,171; Northwestern Construction Co., Franklin, Pa., $15,240; John T. Reese, Dayton, Ohio, $15,429. The Riggs & Sherman Co. are Engrs., Toledo, Ohio.

JEFFERSONVILLE, IND.—Bids are asked until April 26 by the Board of Public Works for constructing trunk sewer. Estimated cost, about $51,000. The sewers are to be of concrete, 36 to 60 ins. diameter.

SHELBYVILLE, IND.—Plans are being prepared on which bids will soon be asked for the construction of a sewer system in this city.

HANCOCK, MICH.—The contract for constructing a 600-ft. tunnel and an 800-ft. sewer in the Park addition was awarded on April 10 by the city to H. T. LEWIS. Work will be commenced as soon as the weather permits. Approximate cost of improvement, $5,500. The sewer will be 2 ft. diameter and the tunnel will be 5 ft. in height and 3½ ft. in width. Timber will be used in the construction of the latter.

SILVIS, ILL.—The PEOPLE'S CONSTRUCTION CO., of Davenport, Iowa, has been awarded contract by the city at $26,597, for laying sewer and water mains in the village.

SPRINGFIELD, ILL.—The Springfield Consolidated Street Ry. Co. has awarded contract for the construction of the sewer which is a necessary part of the building of the Ninth St. subway to RICHARD EGAN. The sewer will be 18 ins. in diameter and will extend west from the tracks of the Chicago & Alton R. R. for a distance of 800 ft., the average depth at which it will be placed being 15 ft.

JEFFERSON, WIS.—The Board of Public Works has awarded to JAMES McCABE, of Fond du Lac, Wis., the contract for installing the second installment of the drainage plan of the city, known as sewerage district No. 2, at $10,000.

MUSCATINE, IOWA.—J. J. Ryan, City Engr., is completing plans, it is stated, for sewers on East Hill, to include sewers on Park and Cannon Aves., Magnolia, Sheridan and other streets.

MANKATO, MINN.—The Board of Public Works has submitted to the City Council a report on the construction of a system of storm water sewers in seven districts, and estimates the cost at $36,000. Dr. J. W. Andrews is Mayor.

ALBERT LEE, MINN.—The citizens on April 6 voted to issue $15,000 of bonds for constructing sewers. Wm. Barneck, of Albert Lea, is Engr.

LINDSBORG, KAN.—Bids are asked by the city until May 10 for the construction of a system of sanitary sewers, about seven miles of 8, 10, 12 and 15-in. pipe. H. A. Rowland is Engr., McPherson, Kan.

HURON, S. DAK.—Bids will be received until May 14 by Neil McKay, Mayor, for the construction of two main lateral sewers here, according to the plans of Loweth & Wolf, Consult. Engrs., First National Bank Bldg., St. Paul, Minn. Estimated cost, $6,000.

*PLANKINTON, S. DAK.—Bids will be received by the City Council until 8 p. m., May 10, for furnishing and delivering necessary material and labor required to construct and complete a sewer system in and for the city. E. F. Mackey is City Audr.

*McALESTER, OKLA.—We are officially advised that HORTON & HORTON, Houston, Tex., were awarded contracts for constructing sanitary and storm water sewers at $48,910 and $19,890, respectively, and for the Sandy Creek improvement, at $31,985. J. Phelan is City Engr. J. M. Gannaway is City Clk.

SEATTLE, WASH.—Bids were received as follows on April 9 by the Board of Public Works for sewers in Thorndyke Ave. and other streets: Ide & Jones, Seattle, $243,355; C. W. Colt & Co., Down's Block, Seattle, $225,236; Krogh & Jessen, Seattle, $240,257; International Contract Co., 501 Central Bldg., Seattle, $243,354; I. RYAN & CO., Sullivan Bldg., Seattle, $167,816 (awarded contract). R. H. Thomson is City Engr.

PORT TOWNSEND, WASH.—Contract for the construction of eight miles of sewer was awarded by the City Council on April 6 to the MOORE CONSTRUCTION CO., of Tacoma.

BELLINGHAM, WASH.—The Board of Public Works on April 6 awarded contract to A. STANLEY BENT, South Los Angeles St., Los Angeles, for constructing a section of the concrete tunnel sewer, which will parallel Whatcom Creek for some distance, at $72,742.

MAYFIELD, CAL.—The citizens on April 5 voted in favor of issuing $37,000 of bonds for the construction of sewers.

EAST CHICO, CAL.—Contract for the construction of the auxiliary sewer system has been awarded by the Sewer Committee to J. W. TORRELL, of Chico, at $3,895.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

CONCORD, N. H.—Bids are asked until 5 p. m., May 10, by A. W. Dean, State Engr., Concord, for surfacing with trap and macadam in East Kingston and Salem.

WORCESTER, MASS.—The WEBB GRANITE CO., of Worcester, has been awarded contract for about 20,000 lin. ft. of curb, at 53 cts. per lin. ft. for straight and $1.10 for circular curb, circular corners, $3.50, all f. o. b. Worcester, and for paving (standard) 6 in. deep, at $1.60 per sq. yd., and 4 in. deep, $1.50.

BOSTON, MASS.—Plans and specifications are on file at the office of Engineering News, New York, for surfacing and grading Section 1 of the Boston embankment. Bids are asked until April 26 by the Charles River Basin Commission. Hiram A. Miller is Ch. Engr.

HARTFORD, CONN.—The State Highway Commissioner has received plans from W. H. Knight, Engr., for 24,000 lin. ft. of road improvement on the New Milford Turnpike in the town of Litchfield.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., April 29, for furnishing and delivering 3,000 cu. yds. of mold on parks in the Borough of Manhattan, and for setting new curbstones in the Parks on Broadway, between 63rd and 80th Sts., in the Borough of Manhattan.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 3, by John F. Ahearn, for regulating and repaving with wood block, asphalt block, sheet asphalt and granite block on a concrete foundation the roadways of various streets.

BINGHAMTON, N. Y.—The lowest bid opened on March 31 by the Board of Contract and Supply for paving with brick Lewis St. was submitted by A. D. Osborn, at $1.60 for Corning, $1.58 for Shawmut and $2.08 per sq. yd. for Metropolitan.

BROOKLYN, N. Y.—Bids are asked by Bird S. Coler, Boro Pres., until 11 a. m., May 5, regulating, grading, curbing, laying sidewalks, regulating and repaving with asphalt on a concrete foundation the roadways of various streets.

WESTVILLE, N. J.—We are officially advised that bids were received as follows on April 14 by the county for resurfacing ½ mile of macadam road here: McGovern Contracting Co., Trenton, N. J., $6,677; New Jersey Contracting & Construction Co., Camden, N. J., $4,968; J. F. Shanley Co., Philadelphia, $3,604. William M. Carter is Engr., Woodbury, N. J.

NEW BRIGHTON, PA.—Bids will be received by the Town Council until 7 p. m., May 6, for the paving of Twelfth St., from Sixth Ave. to Penn Ave., with vitrified paving bricks and hill blocks and other work in connection. Approximate quantities are as follows: Brick paving, 1,430 sq. yds.; block paving, 1,956 sq. yds.; grading, 1,300 cu. yds.; concrete curb and gutter, 1,880 lin. ft.

*KINGSTON, PA.—Bids are asked until 5 p. m., May 3, by W. J. Williams, Boro. Secy., for about 10,000 lin. ft. Wainwright concrete curb and for 15,000 sq. yds. of street paving.

WILMINGTON, DEL.—The Legislature has passed a bill authorizing the Levy Court of New Castle County to issue $300,000 of bonds for road improvements.

BALTIMORE, MD.—Bids are asked by the Canton Co., 24 Commerce St., until noon, April 28, for grading, curbing and paving Canton St., from Eastern Ave. to Lombard St., with sheet asphalt, asphalt blocks, bitulithic or vitrified paving blocks. W. B. Brooks is Pres.

WASHINGTON, D. C.—Bids will be received by the Commissioners of the District of Columbia until April 24 for grading Massachusetts Ave. N. W., between Wisconsin and Nebraska Aves.

ARLINGTON, VA.—Bids will be received until May 5 by Maj. M. Gray Zalinski, Constructing Q. M., U. S. A., Washington, D. C., for constructing macadam road in Arlington National Cemetery.

ACCOMAC, VA.—Bids are asked by the Board of Supervisors of Accomac County until May 3 for widening to 30 ft. and raising 2½ ft. above its present level, 1,000 yds. of road leading from Saxis Island to the mainland of Accomac County. William L. Nock is Chn. Bd. of Supervisors, Temperanceville, Va.

*FORT MONROE, VA.—Bids will be received until 10 a. m., May 17, by Capt. Ernest R. Tilton, Const. Q. M., U. S. A., for filling, grading, surfacing and constructing concrete walks, brick gutters and macadam roads around Artillery School Buildings at Fort Monroe.

PARKERSBURG, W. VA.—The Parkersburg, Williamstown Boulevard Association has organized to construct a road, probably

paved, between Parkersburg and Williamstown, a distance of eleven miles. Estimated cost of paving per mile, $10,000. J. Madison Jackson is Consult. Engr.

CANTON, N. C.—The city has awarded contract to R. H. SORRELLS, of Canton, and D. L. BOYD, Waynesville, N. C., for constructing macadam streets. Estimated cost, $30,000.

*GAINESVILLE, GA.—Bids are asked by the Mayor and Board of Councilmen until 8 p. m., May 4, for furnishing all material and labor for the following work: Approximately 17,000 sq. yds. of street paving (vitrified brick, wood block, bitulithic, or granitoid blocked pavement will be considered), with necessary granite curb as specified. H. S. Jaudon is Engr., Box 576, Atlanta, Ga., and Box 580, Savannah, Ga.

AUGUSTA, GA.—A. H. McDANIEL has been awarded contract at 10⅞ cts. per sq. ft. for laying cement sidewalks ordered during 1909, and W. F. BOWE at 34½ cts. per lin. ft. for curbing. Nisbet Wingfield is City Engr.

*AUGUSTA, GA.—Bids will be received by the Streets and Drains Committee until noon, May 11, for furnishing all material, tools and labor, and constructing complete approximately 8,300 sq. yds. of vitrified brick pavement on Broad St., from Twelfth to 13th Sts.; approximately 3,750 sq. yds. of Belgian block or granitoid pavement on Reynolds St., from Fifth to Sixth Sts., and 4,250 sq. yds. Belgian block or granitoid pavement on 13th St., from Broad to Market Sts., and approximately 1,700 lin. ft. of granite curb to be set on above work. Bids will be accepted on any one or all four of the items. Nisbet Wingfield is City Engr.

MOBILE, ALA.—Bids will be received by the Board of Public Works, J. T. Schley, Pres., until May 12, for 94,000 sq. yds. of creosoted wood block paving, 60,000 lin. ft. cement curb, etc. Wright Smith is City Engr.

*DECATUR, ALA.—We are officially advised that the contract for 27½ miles of macadam road in Morgan County has been awarded to GOODRICH & CRINKLEY, of Harriman, Tenn., at about $93,000. T. T. Bullen is County Engr. Bids were opened on April 12.

CHATTANOOGA, TENN.—We are officially advised that contract was let on April 15 to THOMAS McFARLAND, of Knoxville, Tenn., for the completion of the Mission Ridge tunnel near Chattanooga, being constructed by Hamilton County, as a public highway at $85,000, the work to be completed within twelve months. W. L. Dodd is County Engr.

LEXINGTON, KY.—The Board of Public Works has decided to repair 14 streets, including Maxwell, North Limestone, West Second, Third and other streets.

COLUMBUS, OHIO.—Bids will be received until April 28 by the Board of Public Service, E. W. Hirsch, Secy., for paving and repaving with hard burned brick or block portions of several streets.

AKRON, OHIO.—Bids will be received until April 23 by the Board of Public Service, Ray F. Hamlin, Secy., for paving portions of Quarry and Schell Aves., Cherry and Sumner Sts.

BOWLING GREEN, OHIO.—The contract for macadamizing the C. W. Noble road, a distance of eight miles, in Jackson Township, has been awarded to F. E. BELL and J. C. STINCHCOMB, of Fostoria, at about $54,000. Bids were opened on April 5.

CINCINNATI, OHIO.—Bids will be received until May 7 by the Board of County Commissioners, Fred Dreihs, Clk., for improving Zion Road, Miami Township, per specification No. 839.

The County Commissioners on April 6 awarded contract for the improvement of the Princeton pike, from the north corporation line of the village of Glendale to the Butler County line, to W. P. FLYNN, at $17,002. Other bidders were: J. F. Shanklin, $17,863; George Leonard, $17,883; O. E. Robinson, $18,793; L. Drach Construction Co., $19,248; Silver & Garretson, $19,938; Gephart, O'Malley & Co., $19,970; John Funke & Co., $20,396; John Nickeson, $21,062; M. Sullivan & Sons, $21,246; Joseph Gradison, $21,248; Gordon Engineering Co., $21,708.

SPENCER, IND.—Bids will be received by the Commissioners of Owen County until noon, May 8, for the construction of the following macadamized roads: The Burns road in Clay Township, 6,865 ft. in length; the Mugg road in Taylor Township, 3,605 ft.; the Evans road No. 6 in Wayne Township, 5,310 ft.; No. 7, 8,541 ft., and No. 8, 8,127 ft. long. George W. Edwards is County Audr.

PLYMOUTH, IND.—Bids will be received by the City Clerk for the paving of two miles of streets with Poston brick.

INDIANAPOLIS, IND.—The Board of Public Works has ordered plans and will receive bids for cement walks and sewers. J. T. Elliott is Chn. Bd. of Pub. Wks.

FOWLER, IND.—Bids are asked by the Commissioners of Benton County, until 1 p. m., May 4, for grading, straightening, tiling, bridging and macadamizing the following roads: Adams Ave., entire length, with crushed blue limestone; Lincoln Ave. for three blocks with crushed blue limestone and flint rock in the town of Fowler; the Yochem road in Benton Township with crushed limestone, 2,240 ft. of tile and two culverts; the Nichels road, between Richland and Union Townships, with crushed blue limestone, 2,100 ft. of tile, several culverts and bridges; the Datzman road, Center Township, 5,280 ft. long, with crushed blue limestone, 2,240 ft. of tile, culverts and bridges; the Massas road in Center Township with crushed limestone, 1,700 ft. of tile, bridges and culverts; the Harkrider road, in Center Township, with crushed limestone, 5,630 ft. of tile, bridges and culverts; the Scanlon road in Grant County, 5,280 ft. long, with crushed limestone, 5,400 ft. of tile, bridges and culverts. Lemuel Shipman is County Audr.

GREENCASTLE, IND.—Bids are asked by the Commissioners of Putnam County, until 2 p. m., May 17, for the construction of a macadamized road in Greene Township. D. V. Moffett is County Audr.

HUNTINGTON, IND.—Bids will be received until 9 a. m., May 10, by John W. Weaver, Audr., for the construction of the Giltner gravel road, between Wayne and Polk Townships, Huntington County.

BLOOMINGTON, IND.—Bids are asked by Horace Blakely, Audr., Monroe County, until 2 p. m., May 5, for the construction of the Ward and Adams gravel roads.

TIPTON, IND.—Bids are asked by the joint Boards of Commissioners of Tipton and Clinton Counties, until 10 a. m., May 12, for the construction of a gravel road on the line between Tipton and Clinton Counties. J. F. Barlow is Audr. Tipton County; C. F. Cromwell is Audr. Clinton County.

DANVILLE, IND.—Bids will be received by the Commissioners of Hendricks County until 10 a. m., May 3, for the construction of 12,144½ ft. of gravel road in Center Township. William M. Nichols is County Audr.

PETERSBURG, IND.—Bids are asked by the Commissioners of Pike County until 2 p. m., May 5, for the construction of seven gravel roads in Jefferson Township. Frank R. Bilderbeck is County Audr.

JASPER, IND.—Bids are asked by the Commissioners of Dubois County until 1 p. m., May 3, for the construction of seven miles 4,567.4 ft. of rock road in Harbison Township. M. A. Sweeny is County Audr.

PORTLAND, IND.—The County Commissioners have let gravel road contracts as follows: Gardner road, HOMER TEETERS, $5,970; Davis road, BUNKER & JONES, $7,398.

RACINE, WIS.—Bids will be received until May 1 by the Board of Public Works, P. H. Connolly, Chn., for paving portions of Packard Ave., Monument Sq. and other streets with brick and macadam.

BELOIT, WIS.—The Common Council has ordered the improvement of Portland Ave., approximately 12,000 sq. yds. of tar macadam and combined cement curb and gutter. Robert Caldwell is City Engr.

DES MOINES, IOWA.—Bids will be received by the City Council until April 23 for paving with asphalt and vitrified brick portions of West Third, Clark and other streets, 10,213 sq. yds. George F. Poorman is City Clk.

ATCHISON, KAN.—All bids opened on April 5 by the city for paving Spring St. with brick, about 6,222 sq. yds., have been rejected as excessive. The lowest bid was that of the Atchison Paving Brick Co., at $19,671. New bids will be asked. Fred Giddings is Engr.

ABERDEEN, S. DAK.—Bids are asked until 8 p. m., May 10, by F. W. Raymond, City Audr., for paving portions of several streets with macadam, creosoted blocks, brick or asphalt.

LITTLE ROCK, ARK.—The MEMPHIS ASPHALT & PAVING CO., of Memphis, Tenn., has been awarded contract for asphalt paving, bids opened on April 1, at the following prices: 16,200 sq. yds. asphalt, including 5-in. concrete base, $2.20; 10,000 ft. stone curb, 45 cts.; 10,000 cu. yds. grading, 45 cts.; concrete masonry, per cu. yd., $7.50; 2,800 sq. yds. brick gutters, $2.24.

SEATTLE, WASH.—We are officially advised that bids were received as follows on April 2 for paving Jackson and other streets: P. J. McHugh, Seattle, $153,732; Barber Asphalt Paving Co., White Bldg., Seattle, $175,404; F. McLELLAN & CO., Burke Bldg., Seattle, $153,009 (awarded contract); Rich-Harris Construction Co., Bailey Bldg., Seattle, $165,506. R. H. Thomson is City Engr.

WINNIPEG, MAN.—The City Council has decided to pave with asphalt this year certain streets. Estimated cost, $510,000. H. N. Ruttan is City Engr.

EDMONTON, ALTA.—The City Council has authorized the expenditure of $116,000 for bitulithic street paving.

MANUFACTURING PLANTS.

SOMERVILLE, MASS.—The Boston & Maine R. R. Co. is to start within a month or so on the construction of the new repair plant to be built in East Somerville, according to the Boston "Transcript." The Somerville plant, which is to be built on the "dirty marshes," so called, back of Mystic Ave. and the old nunnery grounds, will cost, when completed, between $1,500,000 and $2,000,000. The first work will be the erection of the power shops. H. Bartlett is Gen. Mech. Supt., Boston, Mass.

NEW BEDFORD, MASS.—Press reports state that the $1,000,000 cotton mill, which will be erected here by the recently chartered New Bedford Cotton Mill, Inc., will be built at once. Lockwood, Green & Co., 93 Federal St., Boston, Mass., Mill Engrs., are drafting the plans, and contracts for mill and machinery will be awarded within two weeks. The mill will be located on the north side of Coffin St. at Collette St. Preliminary work on the site will be begun at once, and it is proposed to have the mill operating next January. The project is promoted by Abbott P. Smith, of this city, who also organized the Dartmouth Manufacture Co., the Soule, Butler, Kilbourn and Taber mills. The mill's capacity will be 80,000 spindles, of which number 60,000 will be put in this year. The 1,200 looms also will be put in this year. The building will be of the usual mill construction, with the exception that the floors will be carried on steel girders, instead of wooden timbers. The main mill will be 405 ft. long, 130 ft. wide and four stories high. The weave shed will be 350 ft. in length, and 200 ft. in width. All the construction will be of the most modern type. The plant will give employment to 750 people. William M. Butler is Pres.

NEW BRITAIN, CONN.—The Traut & Hine Mfg. Co. will erect an addition to its present plant. It will be of brick, one story high, 60 x 80 ft.

MANCHESTER, CONN.—House & Hale are having plans prepared for the erection of a 2-story brick building to replace that which was destroyed by fire April 12.

NEW YORK, N. Y.—Plans have been filed for a 4-story model creamery for the pasteurization of milk, to be built for the Sheffield Farms-Slawson-Decker Co., at a cost of $200,000, on Manhattan St., west of Broadway, from designs by Frank A. Rooke, 489 Fifth Ave.

Frederick Fox & Co., 793 Broadway, have completed negotiations for the erection of a 12-story and basement mercantile structure on the site known as the Peter Cooper property at Fourth Ave. and 27th St., from plans prepared by Clinton & Russell, Archs., 32 Nassau St. The property is owned by Gen. and Mrs. Lloyd S. Bryce, who have leased from the plans the entire building to a corporation composed of a number of manufacturers of white goods, headed by H. H. Hamilton & Co., Andrew Ryan (Inc.) Stern & Zeno. Such parts of the building as they will not occupy for their own purposes will be offered to manufacturers dealing in similar lines of merchandise.

BUFFALO, N. Y.—The American Radiator Co. will erect an office building and thermal testing laboratory adjoining its Pierce plant at the northeast corner of Elmwood Ave. and New York Central Belt Line. It is to be constructed of granite and enameled brick, and will cost $100,000. Green & Wicks, 110 Franklin St., are Archs.

The George N. Pierce Co. will add to its automobile manufacturing plant at Elmwood Ave. and New York Central R. R. Belt Line tracks, two reinforced concrete factory buildings, three stories, 80 × 100 ft. and two stories, 55 × 100 ft., respectively. They will cost $50,000. George K. Birge is Pres., 1695 Elmwood Ave. Lockwood, Green & Co., 93 Federal St., Boston, Mass., are Archs.

BUFFALO, N. Y.—The Sterling Engine Co., C. A. Criqui, Pres., will build a 2-story and basement brick addition, 33 × 87 ft., to its plant at 1250 Niagara St. Esenwein & Johnson are Archs., 775 Ellicott Sq. Bldg.

The Buffalo Cold Storage Co., D. E. Knowlton, Pres., Perry and Columbia Sts., will erect a 3-story brick fireproof addition to its cold storage plant, 120 × 116 ft., on Columbia St., adjoining Lehigh Valley R. R. Contract has been let to CHRISTIAN FLIESL, 1356 Genesee St., for the erection of a 100 × 220-ft. brick addition to the Buffalo Box factory at 365 Babcock St., at $10,000. Esenwein & Johnson, Ellicott Sq. Bldg., are Archs.

BURLINGTON, N. J.—We are officially advised that Frederick A. Waldron, 37 Wall St., New York, has let for the Neidich Process Co., of Burlington, N. J., to W. W. LINDSAY & CO., Harrison Bldg., Philadelphia, Pa., the contract for the proposed 3-story reinforced concrete factory building.

NORRISTOWN, PA.—The Ballard Knitting Co. will erect a knitting plant to cost between $75,000 and $100,000, it is stated. The site of the building will be on Astor St., adjacent to the Wildman Mfg. Co.'s plant. The plans call for a building 154 ft. long, 60 ft. wide and five stories in height, with a basement. The product of the plant will be hosiery and underwear. T. H. Ballard is Mgr.

PITTSBURG, PA.—Approximately $3,000,000 will be expended for new plants this year by the Ward Bread Co., of Pittsburg, chartered lately under the laws of New Jersey. The bread will be made by an automatic process. A milling plant, to cost $1,000,000, will be erected to supply flour for all plants of the Ward-Mackey-Corby interests in Pittsburg, Cleveland, New York, Chicago, Boston and other cities. R. B. Ward is Mgr.

DANVILLE, VA.—Plans and specifications for the proposed additional plant of the Dan River Power & Mfg. Co., of Danville, Va., are about completed. They call for the construction of a main mill building 550 ft. long by 150 ft. wide and three stories, and a cloth room structure 220 ft. long by 75 ft. wide, five stories high. These will be erected on the slow burning mill construction plan, and proposals will probably be invited soon. The mechanical equipment will include 50,000 spindles, 1,500 looms, shafting, pulleys, belting, sprinkler system, humidifiers, heating apparatus, etc. Lockwood, Greene & Co., 93 Federal St., Boston, Mass., are Archs.-in-Charge. The mill is to be driven by electric power, and will have an auxiliary steam plant. It will cost about $1,000,000.

HOLLIDAYS COVE, W. VA.—A 100-acre site on the Sinclair farm at Hollidays Cove, near Mingo and the Ohio River, has been selected for the 8-mill plant projected, which will give employment to 600 men. W. G. Brangham will have charge of the plant when it is completed.

NASHVILLE, N. C.—The contract for constructing the plant of the National Casket Co., of Pittsburg, Pa., has been let to STRUCTURAL CONCRETE CO., of Pittsburg, Pa.

CHESTER, S. C.—J. A. JONES, of Charlotte, N. C., has been awarded the contract to build a new mill for Leroy Springs, at Chester, S. C., the work to begin at once. The contract calls for an enlargement of one of Mr. Springs' mills at this point and for building another, and amounts to $35,000.

ATLANTA, GA.—The Southern Cotton Stalk Pulp & Paper Co., of Atlanta, has purchased an entire block at Cordele, Ga., for the erection of a mill to make a commercial paper from cotton stalks. The property is located near a large supply of water and is on the main line of the Atlanta, Birmingham & Atlantic R. R. The mill to be built at Cordele will be of sufficient capacity to consume the cotton stalks' product for a territory of 20 miles around Cordele, and will cost $150,000. Harvey Jordan, Pres. of the Southern Cotton Association, is interested in the company.

COLUMBUS, GA.—The Hamburger Cotton Mills Co., of Columbus, Ga., is contemplating the erection of an addition. It plans to erect a modern building of sufficient size to accommodate 5,000 spindles and complement of looms, dyeing and finishing machinery, which would mean an expenditure of upwards of $100,000. At present the company is operating an equipment of 8,000 ring spindles, 224 narrow looms, etc., driven by electric power and manufacturing denims, chambrays, etc. The product is dyed and finished at the plant.

LOUISVILLE, KY.—The B. F. Avery & Sons have accepted plans for the construction of a plough ... to cost approximately $700,000 on the company's newly acquired site in the southern outskirts of the city. The new site consists of 31½ acres of ground. About 13 ... will be under roof.

CANTON, OHIO.—The C... Enameling Co., of Crystal Park, formerly the Carnahan Stamping & Enameling ..., will break ground at once for a shop building, 200 x 272 ft., which will be located on the vacant land south of the present ... The new structure, exclusive of the machinery, will cost between $35,000 and $40,000. The building will be of brick and steel construction, fireproof. The roof will be of saw-tooth pattern. The structure will be divided into two apartments separated by a ... wall, each room being 100 × 172 ft. One room will be occupied by the shipping department, and the other will be used for warehouse purposes. Specifications are now being made by Albert M. Allen & Co., Consult. Engrs., 1130 Schofield St., Cleveland, Ohio.

YOUNGSTOWN, OHIO.—The Republic Iron & Steel Co. is preparing plans to erect a pipe and tube mill on the south side of the Mahoning River on the Lansingville property. The company intends to manufacture iron and steel pipe. The Republic company has a capacity of about 1,000,000 tons of wrought iron a year and it also produces its own steel.

MONTICELLO, IND.—W. D. Pratt, of Indianapolis, is preparing to construct and equip a printing plant here. Power will be secured from a hydraulic plant in the Tippecanoe River.

ST. PAUL, IND.—The St. Paul Stock & Grain Co. is asking for bids for the erection of a mill and elevator on the Cleveland, Cincinnati, Chicago & St. Louis Ry. siding in this city.

CHICAGO, ILL.—We are officially advised that Patterson & Davidson, Engrs., Monadnock Block, Chicago, are designing a 3-story and basement fireproof warehouse and repair shop for the Chicago Telephone Co. The building will be 150 × 180 ft., and will have reinforced-concrete floors on steel framework. The building will be equipped with steel fire doors, sheet metal copper windows and skylights, freight elevator, composition roofing, low-pressure steam heating plant, electric power and light. Bids will be asked about May 1. Estimated cost, $110,000.

Five carhouses are to be completed this year by the Chicago Railways Co., according to the plans that have been outlined. One carhouse at 25th and Leavitt Sts. is practically completed, with a capacity of 142 cars; another at Lincoln and Sheffield Aves., providing for 94 cars, will be ready in about three months; the limits carhouse will be the third to be finished, September being the time set for its completion. Two others, at Ogden Ave. and 22d St., and at Kedzie Ave. and Van Buren St., will be finished before the close of the year. The Kedzie Ave. carhouse will cover an area 450 ft. square and its cost is estimated at $400,000. It will shelter 291 cars. Charles Schenck is Supt. Car Shops.

EAU CLAIRE, WIS.—J. Herbert Johnson, of Milwaukee, Wis., will establish a brass foundry here. The Eau Claire Commercial Association has taken up his proposition favorably. J. P. McAnulty is Secy. of the association.

ST. PAUL, MINN.—E. J. Donohue, Arch., Gilfillan Block, City, has awarded the contract for the general construction of the proposed 2-story pressed brick and cut stone factory for the North Star Varnish Co., A. G. Wall, Pres., to PIKE & COOK, 416 Fourth St. South, Minneapolis, Minn. Cost $15,000.

FORT WORTH, TEX.—The Texas Pacific Ry. Co., B. S. Wathen, Ch. Engr., Dallas, Tex., will rebuild its roundhouse, machine shops, coal chutes, water tanks and coal bins recently burned. The round house will have 36 stalls. The machine shops will be 175 × 75 ft.; boiler house, 30 × 60 ft. There will be 20 chutes. Buildings will cost $105,000. The roundhouse and machine shops will be fireproof.

SEATTLE, WASH.—The buildings for the proposed plant of the Vulcan Iron Works will be of the following sizes: General supply house, 120 × 270 ft., half 6 stories high and half 3 stories high; machine shop, 90 × 150 ft.; foundry, 110 × 150 ft.; structural steel shop, 81 × 200 ft.; forge shop, 60 × 150 ft.; pattern shop, 60 × 100 ft.; stables, 40 × 80 ft.; there will also be several other buildings. All buildings will be fireproof construction. The site on tide lands is being filled to depth of 18 ft. The company is drawing all plans for buildings and probably will erect the entire buildings by day work under its own supervision. H. P. Strickland is Secy.-Treas.

LOS ANGELES, CAL.—The Union Oil Tool Co. will build a $50,000 machine shop in the Fullerton oil field at the head of Brea Canyon and near Randolph, to which place the La Habra Valley line of the Pacific Electric Ry. will be extended. The extension will be from Pillsbury and will be about 1½ miles in length, it is stated. Edward Doble, of the Union Oil Co., is Mgr. The Union company has begun the construction of a machine shop at Moron in the Midway field and is building another at Coalinga.

SACRAMENTO, CAL.—George W. Peltier, of the Central California Traction Co., which is building its electric railway, now in operation between Stockton and Lodi, on to Sacramento, announces that the company will establish a car factory on a tract of land near the grounds of the State Agricultural Society, outside of this city. Cars will be manufactured for the company's own use and for

other roads. In addition, the shops will be for the repair of the company's rolling stock. Samuel B. McLenegan is Mgr., Stockton, Cal.

YARMOUTH, N. S.—We have been officially informed that the New Burrell-Johnson Iron Co., Ltd., of Yarmouth, has decided to replace the factory recently destroyed by fire by a reinforced concrete structure, 80 x 80 ft., two stories high, equipped with a 10-ton crane and modern machine tools. Frederick A. Waldron, 37 Wall St., New York, N. Y., has been retained as Arch. and Engr. The construction work will be done by the New Burrell-Johnson Iron Co.'s own force.

MISCELLANEOUS CONTRACTS.

*(*denotes that this work is advertised in Engineering News)*

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

DITCH.—Fairmont, Minn.—LA GRUE & KRUSE have secured contract at $48,970 for constructing the Rutland ditch.

AUDITORIUM.—Winnipeg, Man.—G. H. ARCHIBALD & CO. have secured the contract for erecting a horse show auditorium at $48,000.

CANAL.—Lamar, Colo.—The contract for repairing the Lamar Canal has been awarded to the T. J. SAYLER CONSTRUCTION CO., of Lamar, at $27,000.

FENCE.—Fort Yellowstone, Wyo.—Bids are asked until 3 p. m., April 30, by Lt. G. C. Smith, Constr. Q. M., for constructing iron fence for corrals at this post.

*LUMBER.—Washington, D. C.—Bids are asked by Maj. Jay J. Morrow, Corps Engrs., U. S. A., until noon, May 7, for furnishing and delivering lumber on York River, Va.

CEMENT.—Sacramento, Cal.—Contract for which bids were asked until noon, April 10, by N. Ellery, State Engr., for furnishing 60,000 to 100,000 bbls. of Portland cement will be readvertised.

*RAISING JETTIES.—Jacksonville, Fla.—Bids are asked until noon, May 17, by Capt. George R. Spalding, Corps Engrs., U. S. A., Jacksonville, for furnishing material and raising jetties at entrance to St. Johns River, Fla.

LIGHT-HOUSE BEACON.—Cleveland, Ohio—Bids are asked by the Light-House Engineer, Buffalo, N. Y., until 11 a. m., May 28, for constructing a light-house and an iron beacon at the entrance to Cleveland Harbor, Ohio.

DREDGING.—Richmond, Ind.—The Board of Commissioners has awarded a contract to CHARLES BEEKER & SON, of La Fayette, Ind., for dredging West River between Perry and Dalton townships for a distance of 1½ miles, at $18,200.

CEMENT, ETC.—NEW YORK, N. Y.—Bids are asked until noon, May 3, by Allen N. Spooner, Comr. of Docks and Ferries, for furnishing and delivering cement and for furnishing, delivering and putting in place riprap stone.

JETTIES.—Fort Hancock, N. J.—Bids will be received until 3 p. m., April 30, by the commanding officer for constructing wood jetties, aggregating about 3,800 ft. in length, protecting the east shore line at Sandy Hook Proving Ground.

DREDGING.—Philadelphia, Pa.—Bids are asked until noon, May 10, by Maj. Herbert Deakyne, Corps Engrs., U. S. A., for dredging in Delaware River, Section 1. Specifications are on file at office of Engineering News, New York.

DITCH.—St. Paul, Minn.—George A. Ralph, State Drainage Engr., has awarded the contract for the Crane Creek ditch in Steele County, Minn., to A. C. DAVISSON, Rochester, Ind., at $36,000. The main ditch will be 15 miles long.

MONUMENT.—Terre Haute, Ind.—The Commissioners of Vigo County have let the contract for the construction of the Soldiers' monument in the Court House Square to WEY & BARCUS for $21,826. The shaft is to be 75 ft. high and of Barre granite.

*IRON FENCE.—Boston, Mass.—Bids are asked until 2.30 p. m., May 10, by the Charles River Basin Commission, 367 Boylston St., for about 7,000 lin. ft. of iron fence along the basin wall of the Boston embankment. Hiram A. Miller, Ch. Engr.

*WIRE FENCE.—Missoula, Mont.—Bids are asked by W. B. Greeley, District Forester, Missoula, until noon, May 20, for furnishing about 23 miles of wire fencing and fencing materials to be delivered at Ravalli and Dixon, Mont., for the National Bison Range.

FLOATING BATHS.—New York, N. Y.—Bids are asked until 11 a. m., May 5, by Bird S. Coler, Pres. Boro. of Brooklyn, for furnishing all the labor and material required for repairs and alterations and painting of the four free floating baths of the Borough of Brooklyn.

DITCH.—Little Rock, Ark.—Contract for constructing Dark Hollow drainage ditch has been let to the S. H. ROBINSON & SON CONTRACTING CO., of St. Louis, Mo., and the contract price is $85,000. C. S. WHITNEY, of St. Louis, has the sub-contract for the dredge work.

DITCH.—Harrisburg, Ill.—Bids were received on April 8 by L. E. Coffee, Town Clk., for constructing a ditch known as the main outlet to Briar Creek, Union District, towns of Harrisburg and Independence, consisting of 65,979 cu. yds. Contract was awarded to M. J. O'MEARA, Cullom, Ill.

QUAY WALL.—Key West, Fla.—Bids will be received until 11 a. m., May 1, by R. C. Hollyday, Ch. of the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing a concrete quay wall at Naval Station, Key West, Specification 1623. Appropriation available, $138,000.

*SIGNALS, TOWERS, ETC.—Philadelphia, Pa.—Bids are asked by the Philadelphia & Reading Ry. Co. until noon, May 26, for contract No. 19, permanent signals, Green St. to Broad St.; contract No. 33, signal bridges, Norris St. to Broad St.; contract No. 34, two signal towers. W. Hunter, Ch. Engr.

OAK PILES.—New York, N. Y.—Bids were received by the Department of Docks and Ferries April 13 for Contract No. 1166, for furnishing all the labor and materials required for furnishing and delivering oak piles. Contract was awarded to CHAS. K. NICHOLS, 74 Cortlandt St., at $9.21 per pile.

ALUMINUM WIRE.—Vancouver, B. C.—The British Columbia Electric Street R. R. Co. has awarded a contract to the NORTHERN ALUMINUM CO., of Montreal, for the supply of 390 miles of aluminum wire, at $45,000. This wire will be used for transmission purposes on the company's Chilliwac line.

RAILROAD TRESTLE.—New Britain, Conn.—Bids are being received by the American Hardware Corporation for constructing a reinforced-concrete railroad trestle, about 400 ft. long, which will be built at the Russell & Erwin plant of the company in New Britain. William T. Bonner is Mechanical Engr.

*PURCHASE OF GAS TAR.—Richmond, Va.—Bids will be received at Room 9, City Hall, until 4 p. m., May 17, for the purchase and removal of all the coal and water gas tar, and crude ammoniacal gas liquor produced at these works, for a period of two, three or five years, commencing July 1, 1909. W. P. Knowles is Supt.

*LIGHT-HOUSE.—Wilmington, Del.—Bids were received as follows on April 7 by the Light-House Engineer, Wilmington, for completion of foundation of light-house at Miah Maul Shoal Light Station, Delaware Bay, N. J.: Tatnall-Brown Co., Wilmington, Del., $23,400; New Jersey Foundry & Machine Co., New York, N. Y., $27,960.

TIMBER.—Fort William, Ont.—Bids were received March 29 by Napoleon Tesser, Secy. Dept. Pub. Wks., Ottawa, Ont., for the supply of timber, to be delivered at the mouth of the Mission River, Ont. W. R. Merrick is Res. Engr., Fort William. Contract has been let to MASON, GORDON & CO., 80 St. Francis Xavier St., Montreal, Que.

*PIER REPAIR.—Manistee, Mich.—Bids were received as follows on April 14 by Major Charles Keller, Corps Engrs., U. S. A., 57 Park St., Grand Rapids, for repairing the North Pier at Manistee: Robert Love, Muskegon, Mich, $10,888; Burk, Smith & Nelson, Muskegon, Mich., $11,425; Standard Construction Co., Chicago, Ill., $20,501.

DREDGING.—Vallejo, Cal.—Bids will be received until 11 a. m., May 15, by R. C. Hollyday, Ch. of the Bureau of Yards, Navy Dept., Washington, D. C., for dredging about 100,000 cu. yds. at the navy yard, Mare Island, Specification No. 1628. Estimated cost, $20,000. Specifications are on file at the office of Engineering News, New York.

*DREDGING.—Geneseo, Ill.—Bids were received on March 26, by the Commissioners of the Green River Special Drainage District in Henry and Bureau counties for cleaning out the Harrison Lateral Ditch, requiring the removal of approximately 15,709 cu. yds. of material. Contract has been awarded to CHARLES STEVENS, of Geneseo, at $3,800.

*STEEL.—Sault Ste. Marie, Mich.—Bids were received on March 26, by Lieut.-Col. C. McD. Townsend, Corps Engrs., U. S. A., Detroit, Mich., for furnishing and delivering at Sault St. Marie, Mich., about 80 tons of steel, etc., for canal gate. Contract has been awarded to the MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., at $6,614.

TELEPHONE SYSTEM.—Wilcox, Sask.—Bids were received by A. E. Hadley on April 5 for the construction work and supply of materials for the Wilcox Mutual Rural Telephone Co.'s proposed system. Contract was awarded for building the line to B. R. LOYD, of Wilcox, at $25 per mile. Estimated cost, $4,500. Company supplies material, which has already been ordered.

PIER.—San Francisco, Cal.—Bids were received by the Board of State Harbor Commissioners on April 8 for furnishing material (except cement and track rails with fish plates) for the construction on Pier 36. Contract was awarded to the ASSOCIATED CONTRACTING CO., San Francisco, at $364,000. W. B. Thorpe is Secy. Ralph Barker, Asst. State Engr.

LUMBER.—Wheeling, W. Va.—Bids were received as follows by Capt. F. W. Alstaetter, Corps Engrs., U. S. A., Wheeling, on March 26, for 545 M ft. B. M. of hemlock lumber, to be delivered at Dam 26, near Point Pleasant: Charleston Lumber Co., Charleston, W. Va., $30 per M.; Crescent Lumber Co., Pittsburg, Pa., $24; G. Elias & Bro., Buffalo, N. Y., $24.50.

DREDGING.—Duluth, Minn.—Bids were received on April 13 by Lt.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, for dredging at (a) Port Wing, Wis., $8,000 to $12,000 to be expended; and (b) Ontonagon, Mich., $4,000 to $4,800 to be expended. The contract has been let to the NORTHERN DREDGE & DOCK CO., Duluth, at (a) 17¾ cts. per cu. yd.; (b) 17 9/10 cts.

WIRELESS STATION.—Fort Riley, Kan.—Bids were received by Capt. W. M. Whitman, Constr. Q. M., on March 29 for construction and plumbing of wireless telegraph station building. Contracts were let as follows: Construction of buildings, JOHN HOLMGREN, Junction City, Kan., at $2,274; extension to electrical distributing system, R. L. SPARKS, Long Bldg., Kansas City, Mo.

CAPSTANS.—Washington, D. C.—Bids were received as follows on April 17 at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing four electrically driven capstans for the navy-yards at Mare Island, Cal., and Philadelphia, Pa.: Hyde Windlass Co., Bath, Me., $10,360; American Ship Windlass Co., Waterman and River Sts., Providence, R. I., $13,200, $12,560, $13,000.

HOWITZER CARRIAGES.—Washington, D. C.—Bids were received as follows on April 7 at the office of the Chief of Ordnance, U. S. A., for furnishing four howitzer carriages: Albert & J. M. Anderson Mfg. Co., Boston, Mass., $10,800 each; American & British Mfg. Co., Bridgeport, Conn., $12,695; Bethlehem Steel Co., South Bethlehem, Pa., $8,206; Dietrich & Harvey Machine Co., Baltimore, $4,229.

STADIUM.—Cambridge, Mass.—The TURNER CONSTRUCTION CO., 11 Broadway, New York, has been awarded a general contract on a percentage basis for the completion of the Harvard Stadium at Cambridge, Mass. This work will be reinforced concrete throughout, and will include a promenade along the top of the present stadium. Approximate cost, $50,000. Work will be started at once.

*CREEK IMPROVEMENT.—Wilmington, Del—Bids were received as follows on March 26, by Capt. L. H. Rand, Corps Engrs., for dredging for improvement of Raccon Creek, N. J.: River & Harbor Improvement Co., Philadelphia, Pa., 15.9 cts. per cu. yd.; Edward F. Fowler, Philadelphia, 13.9 cts.; The Rickards, Real Estate Trust Bldg., Philadelphia, 11.8 cts. Amount available, $18,000.

DITCH.—Jackson, Minn.—The contract for the open ditch work of Judicial Ditch No. 6 has been awarded to the STANDARD DRAINAGE CO., of Windom, for about $15,000. The tile ditches will be about 39 miles in length and the contract was let to SAM CHRISTENSEN, of Garner, Iowa, for $49,000. The contract for Ditch No. 7 was let to the SHERBURN CEMENT TILE CO., the consideration being $21,705.

LIGHT STATION.—Wilmington, Del.—Bids were received as follows at the office of the Engineer, Fourth Light House Dist., April 5, for erection of superstructure of elbow of Cross Ledge Light Station, N. J.: Jas. A. Hirons, Dover, $9,000 (recommended for award); Tatanall-Brown Co., Wilmington, $18,100; New Jersey Foundry & Machine Co., New York, N. Y., $19,400, and Daniel F. Toomey, South Norwalk, Conn., $19,600.

RIPRAP.—Tompkinsville (S. I.), N. Y.—Bids will be received at the office of the Lighthouse Engineer, Tompkinsville, N. Y., until 1 p. m., May 3, for furnishing and placing riprap stone, about 1,000 tons each, at the following light stations: Coxsackie, N. Y.; North Dumpling, N. Y.; Stratford Shoal, N. Y.; Romer Shoal, N. Y.; Cedar Island, N. Y., and on North Brother Island, N. Y., and Plum Island, N. Y., 1,500 and 200 tons, respectively.

PILE REVETMENT.—North Chicago, Ill.—Bids were received as follows on March 10 by the Bureau of Navigation, Navy Dept., Washington, D. C., for construction of pile revetment at the naval training station, Great Lakes, North Chicago, Ill.: Great Lakes Dredge & Dock Co., Chicago, Ill., $27,950; Edward Gillen Dock, Dredge & Construction Co., Racine, Wis., $26,660; Standard Construction Co., First National Bank Bldg., Chicago, Ill., $23,000.

LOCK-GATES.—Washington, D. C.—Bids were received as follows on April 12, at the office of Maj. J. J. Morrow, U. S. Engineer, Washington, D. C., for furnishing lock-gates for the new concrete bridge at the Tidal Basin, Potomac Park, Washington, D. C.: Hoisting Machinery Co., New York, $14,600; Penn Bridge Co., Beaver Falls, Pa., $12,060; G. & W. Mfg. Co., 26 Cortlandt St., New York, $8,997; New Jersey Foundry & Machinery Co., 90 West St., New York, $14,380.

WALLS, GATEWAYS, ETC.—New York, N. Y.—Bids are asked by John W. Brannan, Pres. Bd. Trustees, Bellevue and Allied Hospitals, until 3 p. m., April 27, for labor and materials required for all the excavation, top soil, sodding, seeding, concrete work, stone work, brick work, iron work, plumbing, carpenter and other work in the layout of the grounds, paths, fences and inclosing walls and gateways at the new Training School for Women Nurses, Bellevue Hospital, foot of East 26th and 25th Sts., the City of New York.

GUN FORGINGS.—Washington, D. C.—Bids were received as follows on April 17 at the Bureau of Ordnance, War Dept., Washington, D. C., for furnishing (a) 28 sets forgings for 3-in. field guns, four sets for 4.7-in. Howitzer, four sets for 4.7-in. Siege, four sets, 6-in. Howitzer, two sets, 3-in. 15-pounder; (b) eight sets for 12-in. mortars: Bethlehem Steel Co., South Bethlehem, Pa., (a) 62 cts. per pound; (b) tubes and jackets, gun steel, 25 cts.; trunnions, 30 cts.; rings, etc., 35 cts. Midvale Steel Co., Philadelphia, Pa. (a) 60 cts.; (b) gun steel, 21 cts.; nickel steel, 30 cts.

*BREAKWATER.—Buffalo, N. Y.—Bids were received as follows April 15 by Col. W. L. Fisk, Corps Engrs., U. S. A., Buffalo, for constructing a stone breakwater in Buffalo Harbor (a) for 12,275 tons of rubble stone, per ton; (b) 14,425 tons of capping stone, per ton; (c) total: Joseph Dunfee, Syracuse, N. Y., (a) $1.18, (b) $2.87, (c) $55,884; The Breakwater Co., Cleveland, Ohio, (a) $1.30, (b) $2.45, (c) $51,299; MacArthur Bros. Co., 11 Pine St., New York, N. Y., (a) $2.47, (b) $4.10, (c) $89,462; Great Lakes Construction Co., Buffalo, N. Y., (a) $1.30, (b) $3.74, (c) $69,907.

DRAINS.—South Bend, Ind.—Bids were received on March 27, by H. G. Miller, Constr. Comr., for construction of drains and ditches in St. Joseph County. The work to consist of construction of a main dredge ditch and lateral ditches Nos. 1 to 20, both inclusive. Ralph E. Keller is Engr. Yoder & Swartz, Nappanee, Ind., were the lowest bidders on the dredge work at 5.96 cts. per cu. yd. They own sufficient equipment. Titus E. Kinzie, South Bend, was lowest on almost all of the laterals, consisting of both open ditches and tile drains. W. H. Easterday, Wyatt, Ind., was lowest bidder on two laterals.

DREDGING.—Brooklyn, N. Y.—Bids were received on April 14, by Bird S. Coler, Boro. Pres., for (a) dredging Wallabout Canal, from Washington Ave. to Hewes St. Estimated quantity, 17,600 cu. yds. scow measurement; (b) for dredging Newtown Creek Canal, at and in the canal and basin included within the boundaries of Johnson Ave., Montrose Ave., Morgan Ave., Varick Ave., and also in the Stagg St. Basin. Estimated quantity, 4,415 cu. yds. The following bids were received: G. Packard (a) 34 cts., (b) 68 cts.; U. S. Dredging Co., 250 Washington St., Jersey City, N. J., (a) 30 cts., (b) 48 cts.

VESSEL.—Washington, D. C.—Bids were received as follows on April 7 at the office of the Light House Board, Washington, D. C., for the construction of light-house vessel No. 94: Racine Boat Co., Muskegon, Wis., $96,500; New York Ship Building Co., Camden, N. J., $113,500; Harlan & Hollingsworth Corporation, Wilmington, Del., $99,950; Maryland Steel Co., Sparrow's Point, Md., $114,325; Staten Island Ship Building Co., Staten Island, N. Y., $100,000; William Cramp & Sons Ship Building Co., Philadelphia, $99,400; Fore River Ship Building Co., Quincy, Mass., $102,400; Pusey & Jones, Wilmington, Del., $120,000.

*CANAL.—Augusta, Ga.—Bids are asked until noon, May 12, by the Canal and River Commission for the protection of the city of Augusta, until noon, May 12, for furnishing all material and labor and constructing complete the following work: Raising masonry of bulkheads at the locks; raising and reinforcing earth bank along the canal; constructing masonry retaining wall along a portion of tow path; paving with stone certain portions of the canal bank; surfacing and paving a portion of Hawks Gully; surfacing and paving a portion of South Bank of the Savannah River from Hawks Gully east. Nesbet Wingfield is City Engr. and Comr. of Pub. Wks.

WHARF.—Beaumont, Tex.—Bids were received by J. G. Sutton, City Secy., on April 6 for the construction of a wharf about 700 ft. long, 16 ft. wide, on the river front from the western edge of Pearl St. to the eastern boundary line of the old city of Beaumont. C. L. Scherer, City Engr. Following are the bids: A. D. McCord & Co., 289 Main St., Dallas, Tex., $39,426; H. D. APPLEGATE & SON, Beaumont, $29,200 (awarded contract); Spencer & Howe, Port Arthur, Tex., $29,214; J. A. Andrews & Son, Beaumont, $38,191; A. D. Siefert and G. C. Kennedy, Beaumont, Tex., $37,850; Isaac Heffron, Galveston, Tex., $31,400; W. C. Whitney, Beaumont; $34,000; Midland Bridge Co., Kansas City, Mo., $34,900; J. B. Goyen & Son, Houston, Tex., $37,373; Chas. Clark & Co., Galveston, Tex., $34,936; C. Derrick, Houston, Tex., $34,438. The above prices do not include dredged filling.

*TUNNEL.—Boston, Mass.—Bids were received on March 30 by the Boston Transit Commission, B. Leighton Beal, Secy., for constructing Section 1 of the tunnel under Beacon Hill for the Cambridge Connection. The structure will be mainly of concrete. Bids were received on two different plans, as follows: (a) all work assumed to be done in free air, (b) 300 lin. ft assumed to be built under compressed air, remainder in free air. Peter W. Hill, 426 Old South Bldg., Boston, (a) $749,665. (b) $777,265; Joseph McCabe, 505 Banigan Bldg., Providence, R. I., (a) $610,684, (b) $683,634; Coughlan & Sheils Co., 43 Tremont St., Boston, (a) $605,450, (b) $622,770; Manufacturers' Contracting Co., Wilmington, Del., (a) $592,060, (b) $639,510; Jones & Meehan, 10 Tremont St., Boston, (a) $546,115, (b) $570,235; Northeastern Construction Co., 6 Beacon St., Boston, (a) $532,890, (b) $546,800; Bruno & Petitti, 18 Tremont St., Boston, (a) $530,950, (b) $561,976; William H. Smith Co., 445 Tremont Bldg., Boston, (a) $524,730, (b) $551,010; Coleman Bros., 15 Court Sq., Boston, (a) $520,207, (b) $538,332; Metropolitan Contracting Co., 95 Milk St., Boston, (a) $488,732, (b) $499,752; United Engineering & Contracting Co., 32 East 32d St., New York, N. Y., (a) $481,800, (b) $515,715; Patrick McGovern, 6 Beacon St., Boston, (a) $469,007, (b) $483,562.

EXAMINATIONS.

ASSISTANT CHEMIST.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 5 to secure eligibles from which to make certification to fill at least two vacancies in the position of Assistant Chemist (male), at salaries ranging from $1,400 to $2,200 a year, in the office of Public Roads, Dept. of Agriculture, and vacancies requiring similar qualifications as they may occur. Age limit, 20 years. Application Form 1312.

ARCHITECTURAL AND STRUCTURAL STEEL DRAFTSMAN.—San Francisco, Cal.—The U. S. Civil Service Commission announces an examination on May 5-6 to secure eligibles from which to make certification to fill a vacancy in the position of Draftsman, $100 a month, in the office of the Engineer of the Twelfth Light-House District, San Francisco, Cal., and vacancies requiring similar qualifications as they may occur in any branch of the service. Age limit, 18 years. Application Form 1312.

ARCHITECTURAL DESIGNER.—Albany, N. Y.—An open competitive examination (for men only) will be held by the State Civil Service Commission in various cities throughout the state, on May 1, for the position of Architectural Designer, State Architect's office. Intending competitors must execute application blanks and file them in the office of the Commission before noon, April 24. Competitors must be 21 years of age. Non-residents or non-citizens will be admitted to the examination. The position requires expert drafting and designing. Salary, from $1,800 to $2,500 a year.

MECHANICAL ASSISTANT.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 5 to secure eligibles from which to make certification to fill a vacancy in the position of Mechanical Assistant, at a salary of from $900 to $1,200 a year, in field investigations, Bureau of Plant Industry, Dept. of Agriculture, and vacancies requiring similar qualifications as they may occur. The duties of the appointee will be to assist in the operation of a special railway car equipped with refrigerating machinery for pre-cooling fruits, in the per-

formance of which duties it will be necessary for him to accompany the car into any part of the United States. It will be necessary that the appointee be of slender physique on account of the limited space available in which some of the work must be done. Age limit, 25 years. Application Form 1093.

PHYSIOLOGIST.—Washington, D. C.—The United States Civil Service Commission announces an examination on April 28, 1909, to secure eligibles from which to make certification to fill several vacancies in the position of Physiologist in poisonous plant investigations (male), Bureau of Plant Industry, Dept. of Agriculture, at salaries ranging from $1,500 to $2,250 a year, and vacancies requiring similar qualifications as they may occur. Men only will be admitted to this examination. Competitors will not be assembled for any of the tests. Age limit, 21 years. Application Form 304 and special form. Applications must be filed prior to closing hour on April 28.

FOOD AND DRUG INSPECTOR.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 5-6, to secure eligibles from which to make certification to fill vacancies in the position of Food and Drug Inspector (male), at salaries of $1,000 to $1,800 a year, in the Bureau of Chemistry, Dept. of Agriculture. As a result of this examination three registers will be established, depending upon the experience shown, from which certification shall be made to (1) Food Inspector, (2) Drug Inspector, and (3) Food and Drug Inspector. The practical questions will be the same for all classes. Men only will be admitted to this examination. Age limit, 30 to 45 years. Application Form 1312.

ARCHITECTURAL DRAFTSMEN.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on May 19-20, to secure eligibles from which to make certification to fill vacancies as they may occur in the Supervising Architect's Office in the position of Architectural Draftsman, at salaries of $1,200 a year and upward, and in the position of Junior Architectural Draftsman, at salaries ranging from $840 to $1,000 a year. As an insufficient number of eligibles to meet the needs of the service resulted from the examinations held on March 10-11 for these positions, qualified persons are urged to enter these examinations. Age limit, 18 years. Application Form 1312. Applications must be filed prior to hour of closing on May 8.

DRAFTSMEN.—New York, Chicago, etc.—An examination of applicants will be held simultaneously at the Navy Yards, Boston, Mass.; Brooklyn, N. Y.; Philadelphia, Pa.; Washington, D. C.; Mare Island, Cal.; Puget Sound, Wash., and at Chicago, Ill., on May 24 and 25, for the purpose of establishing an eligible register of structural steel work draftsmen of all grades. Such applicants as pass a satisfactory examination will be eligible for appointment in the naval service at any time within two years from the date of the examination. The schedule of the examination will be the same for draftsmen and assistant draftsmen. Candidates who do not attain the percentage required for draftsmen will, if their examination warrants it, be considered eligible for appointment as assistant and copyist draftsmen. The pay of structural steel work draftsmen is as follows: (A) First class; (B) second class; (C) third class (per day): Structural steel work draftsmen—(A) $5.52, (B) $5.04, (C) $4.72; assistant structural steel work draftsmen, (A) $4.00, (B) $3.76, (C) $3.52; copyists structural steel work draftsmen—(A) $3.28, (B) $3.04, (C) $2.80. Applicants desiring to take the examination at any of the navy yards will address their applications to the commandants of such yards. Those wishing to take the examination at Chicago, Ill., will address their applications to the Secretary of the Navy, Washington, D. C. All applications must be delivered to the proper officer on or before May 12. No application received after that date will be considered.

TRADE PUBLICATIONS.

PORTABLE AND STATIONARY AIR COMPRESSORS.—Allis-Chalmers Co., Milwaukee, Wis. Paper; 8 × 10½ ins.; pp. 4; illustrated.

These are small size motor-driven units, and the illustrations show the complete unit (motor, compressor, reservoir and attachments) mounted on a hand truck so that it can be brought close to the work. The compressors range in capacity from 11 to 50 cu. ft. of free air per minute.

TYPICAL CONSTRUCTION WORK.—The Snare & Triest Co., Contracting Engineers, 143 Liberty St., New York City. Leather; 13¾ × 10¾ ins.; pp. 58; 58 full-page illustrations.

This attractive publication presents handsome full-page photo-gravures showing a variety of structures completed by the Snare & Triest Co. Bridges, bridge terminals, railway and ferry terminals, piers, coaling plants, brick and concrete buildings and water-works reservoirs are some of the works illustrated.

Most of the bridges and bridge terminals shown are in New York City and vicinity, but two of them are, respectively, at Mantanzas and Santo Domingo, Cuba. The concrete construction includes railway stations and power-houses and the reinforced-concrete water tanks at Havana, Cuba, which were described in Eng. News, April 30, 1908, p. 471. The coaling plants shown are those of the U. S. Navy at San Francisco, Cal.; Portsmouth, N. H.; Dry Tortugas, Fla., and East Lamoine, Me.

The pictures are of uniformly excellent quality, and the paper and binding are much superior to that generally put into trade publications. The interest and value of the book would be enhanced, however, if the illustrations were supplemented by brief notes, at least, giving such data as the spans of the bridges, and calling attention to points of especial interest in the details of construction.

CONCRETE MIXING.—Association of American Portland Cement Manufacturers, Philadelphia, Pa. Bulletin No. 20. 6 × 9 ins.; pp. 24; illustrated.

"Mixing and Placing Concrete by Hand," by P. H. Wilson and C. W. Gaylord is a succinct description of the preferable methods to be used in concrete mixing. It is intended for those unacquainted with the detail of such work.

CONCRETE REINFORCEMENT.—F. P. Smith Wire & Iron Works, Chicago, Ill. 8 × 10½ ins.; pp. 8; illustrated.

This company has a system of girderless floor construction which it described in this pamphlet, together with notes on spiral reinforcement, wire stirrups and floor scuppers, the latter for reinforced-concrete floors.

(Continued on page 135.)

CONTRACT [illegible]ICES.

[Where * precedes ite[illegible] under Contract Prices, the work wa[illegible] [illegible]vertised in Engineering News.]

BARGE CANAL.—Alb[illegible] N. Y.—Bids were received on March [illegible] F. C. Stevens, Supt. Public Works, for [illegible]ge Canal Contract No. 32, which is fo[illegible] [illegible]structing lock gates, needle beams, need[illegible] [illegible]nd lock valves on Contracts Nos. 3, 25 an[illegible] on the Champlain canal, were: (A) e[illegible] [illegible]er's estimate; (B) PENN BRIDGE CO., [illegible]ver Falls, Pa. (awarded contract); (C) [illegible]rill-Ruckgaber Co., 50 Church St., New [illegible]; (D) Snare & Triest Co., 143 Liberty [illegible] New York. Bids in detail were:

	(A)	(B)	(C)	(D)
4 M. ft. B. M. sawed lumber (yellow pine or Douglas fir)	$55.00	$50.00	$50.[illegible]	$50.00
17 M. ft. B. M. white oak sawed lumber in lock gates	100.00	.95.00	100.[illegible]	95.00
41 M. ft. B. M. sawed lumber in needles	75.00	67.00	60.[illegible]	70.00
2 cu. yds. reinforced concrete	12.50	12.50	12.8[illegible]	13.00
580,000 lbs. metal in lock gates	.06	.0419	.0[illegible]	.056
180,000 lbs. metal in needle beams	.06	.054	.05[illegible]	.051
92,000 lbs. metal in lock valves	.10	.089	.09[illegible]	.10
Totals	$59,820	$46,797	$54,9[illegible]	$54,925

*AQUEDUCT.—New York, N. Y.—Bids were received on April 8 by the Board of Water Supply for Contract 46, for the construction of a portion of the Catskill aqueduct, consisting of Millwood, Sarles, Harlem Railroad, Pleasantville and Reynolds Hill tunnels, Putnam siphon and Millwood-South, Sarles and Pleasantville cut-and-cover. All bids were rejected. Following are the bids in detail submitted by (A) Booth & Flinn, Ltd., 1942 Forbes St., Pittsburg, Pa.; (B) J. H. Gray Co., 2019 Fuller Bld g.,New York; (C) Mason & Hanger Co., Richmond, Ky.; (D) American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.; (F) Bradley Contracting Co., 1 Madison Ave., New York; (F) George W. Jackson, Chicago, Ill., and 46 Wall St., New York; (G) Gore-Meenan Co., 206 Broadway, New York; (H) John C. Rodgers, 121 West 125th St., New York; (I) Buffalo Dredging Co., 306 D. S. Morgan Bldg., Buffalo, N. Y.; (J) The Degnon Contracting Co., 60 Wall St., New York; (K) Average bid price:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
91,000 cu. yds. removal of top-soil	$0.45	$0.40	$0.75	$0.35	$0.35	$0.50	$0.50	$0.40	$0.50	$0.40	$0.46
13,000 cu. yds. open-cut excavation, Sta. 384 to Sta. 391 + 50, Type A	.88	.70	.91	1.25	.75	.90	1.00	.92	1.30	1.10	.97
35,000 cu. yds. open-cut excavation, Sta. 391 + 50 to Sta. 412, Type B	.88	1.10	1.09	1.25	.80	.90	1.00	1.59	1.57	1.70	1.28
34,000 cu. yds. open-cut excavation, Sta. 412 to Sta. 431, Type A.	.88	.65	1.02	.75	1.15	.90	1.15	1.30	1.00	1.25	1.00
38,000 cu. yds. open-cut excavation, Sta. 473 + 50 to Sta. 493, Type A	.88	.75	1.10	.85	.80	.90	1.45	1.16	1.10	1.30	1.03
2,000 cu. yds. open-cut excavation, Sta. 545 + 30 to Sta. 546, Type A	.88	1.20	1.34	1.50	1.90	.90	1.90	1.55	1.55	1.70	1.44
6,000 cu. yds. open-cut excavation, Sta. 553 + 85 to Sta. 555. Type B	.88	.75	.66	1.00	1.15	.90	.70	.73	.65	1.00	.84
19,000 cu. yds. open-cut excavation, Sta. 566 to Sta. 573, Type A.	.88	.85	1.20	1.00	.90	.90	1.30	1.25	1.20	1.25	1.07
14,000 cu. yds. open-cut excavation, Sta. 580 to Sta. 587 + 50, Type A	.88	.90	1.09	1.00	1.15	.90	1.75	1.48	1.45	1.50	1.21
45,000 cu. yds. open-cut excavation, Sta. 587 + 50 to Sta. 619, Type B	.88	.75	.90	1.00	.85	.90	1.70	1.31	1.30	1.40	1.10
73,000 cu. yds. open-cut excavation, Sta. 619 to Sta. 645, Type A.	.88	.55	.86	.70	1.15	.90	1.05	1.04	1.25	1.00	.94
53,000 cu. yds. open-cut excavation, Sta. 645 to Sta. 652 + 50, Type A	.88	.60	.97	.75	1.15	.90	.90	.72	1.25	1.00	.91
70,000 cu. yds. open-cut excavation, Sta. 689 to Sta. 702, Type A.	.88	.75	.93	.75	.70	.90	1.00	1.16	1.25	1.05	.94
11,000 cu. yds. refilling and embanking, Sta. 384 to Sta. 391 + 50.	.25	.30	.50	.30	.25	.30	.30	.30	.35	.30	.31½
24,000 cu. yds. refilling and embanking, Sta. 391 + 50 to Sta. 412.	.25	.30	.32	.30	.25	.30	.30	.30	.35	.35	.30
21,000 cu. yds. refilling and embanking, Sta. 421 to Sta. 431....	.25	.30	.31	.30	.25	.30	.30	.30	.35	.30	.29½
16,000 cu. yds. refilling and embanking, Sta. 478 + 50 to Sta. 493.	.25	.30	.32	.30	.25	.30	.30	.30	.35	.30	.29½
500 cu. yds. refilling and embanking, Sta. 545 + 30 to Sta. 546.	.25	.30	.42	.30	.25	.30	.30	.30	.35	.40	.31⅓
2,000 cu. yds. refilling and embanking, Sta. 553 + 85 to Sta. 555.	.25	.30	.43	.30	.25	.30	.30	.30	.35	.35	.31¼
7,500 cu. yds refilling and embanking, Sta. 566 to Sta. 753.....	.25	.30	.37	.30	.25	.30	.30	.30	.35	.30	.30
7,500 cu. yds. refilling and embanking, Sta. 580 to Sta. 587 + 50.	.25	.30	.31	.30	.25	.30	.30	.30	.35	.30	.29½
40,000 cu. yds. refilling and embanking, Sta. 587 + 50 to Sta. 619.	.25	.30	.32	.30	.25	.30	.30	.30	.35	.30	.29½
45,000 cu. yds. refilling and embanking, Sta. 619 to Sta. 645.....	.25	.30	.31	.30	.25	.30	.30	.30	.35	.30	.29⅓
16,000 cu. yds. refilling and embanking, Sta. 645 to Sta. 652 + 50.	.25	.30	.37	.30	.25	.30	.30	.30	.35	.30	.30
31,000 cu. yds. refilling and embanking, Sta. 639 to Sta. 702.....	.25	.30	.34	.30	.25	.30	.30	.30	.35	.30	.30
40,000 cu. yds. surface dressing and grassing	.40	.60	.48	.40	.40	.70	.60	.40	.60	.50	.51
70,900 cu. yds. concrete masonry for aqueduct in open cut and on embankment	5.00	4.75	5.25	5.25	5.00	5.30	4.75	5.50	5.50	6.50	5.28
2,200 cu. yds. concrete masonry for culverts, retaining walls, etc.	6.00	7.00	6.00	6.25	6.00	5.00	6.00	7.00	6.00	6.00	6.12
5,700 cu. yds. reinforced concrete	8.00	7.00	8.20	6.25	5.50	6.40	8.00	12.00	10.00	10.00	8.13
200 cu. yds. rubble masonry and paving in mortar	5.00	5.00	4.35	4.50	4.50	4.00	4.50	3.00	4.50	5.00	4.43
1,100 cu. yds, dry rubble masonry and paving	4.00	4.00	3.30	2.50	4.00	4.00	2.50	3.00	3.50	3.50	3.43
6,000 cu. yds. crushed stone, gravel and material for filters.....	2.00	2.00	1.95	2.00	1.50	1.80	1.75	2.00	1.75	1.75	1.85
300 cu. yds. surfacing macadam roads	4.00	3.00	2.20	3.00	3.00	3.00	3.00	1.25	4.00	2.00	2.85
12 sluice-gates and gate-valves	100.00	110.00	93.75	90.00	100.00	100.00	100.00	75.00	100.00	90.00	95.88
1 Venturi meter	8,000.00	7,500.00	9,125.00	10,800.00	8,000.00	800.00	5,000.00	8,000.00	7,500.00	12,000.00	7,672.50
10 tons cast-iron pipes and special pipe castings	80.00	100.00	100.00	75.00	75.00	80.00	75.00	80.00	100.00	80.00	84.50
8,000 lin. ft. vitrified pipe	1.00	1.25	1.40	.75	1.00	1.00	1.00	.75	1.50	1.00	1.06
250 M. ft. B. M. timber and lumber	60.00	60.00	60.00	50.00	50.00	70.00	50.00	40.00	60.00	60.00	56.00
6 testing portions of aqueduct	500.00	900.00	1,175.00	500.00	1,000.00	800.00	1,000.00	400.00	850.00	500.00	762.50
1,400 lin. ft. testing portions of aqueduct exceeding 200 ft.	2.00	1.50	2.45	1.50	2.00	2.00	2.00	2.00	3.00	1.00	1.95
Crossing tracks of Putnam Div. of N. Y. C. and H. R. R. (lump sum)	10,000.00	5,000.00	3,000.00	6,000.00	4,500.00	3,000.00	1,000.00	3,000.00	3,000.00	1,500.00	4,000.00
180,000 cu. yds. rock excavation in tunnel	5.25	5.33	5.00	5.75	5.00	5.70	5.75	7.00	6.30	6.50	5.85
1,900 sq. yds. additional trimming in tunnel	2.00	3.00	5.15	5.00	3.00	5.60	5.00	3.00	6.00	4.00	4.17
2,000 cu. yds. earth excavation in tunnel	4.00	4.00	4.25	4.00	4.00	4.00	4.50	7.00	5.00	8.00	4.88
500 cu. yds. enlargement of tunnel section in earth	10.00	10.00	7.65	6.00	5.00	9.00	10.00	7.00	9.00	4.00	7.76
357 M. ft. B. M. permanent timbering in tunnel	55.00	60.00	62.50	50.00	50.00	70.00	60.00	60.00	60.00	90.00	61.75
71 M. ft. B. M. temporary timbering in tunnel	50.00	55.00	57.00	40.00	50.00	70.00	50.00	50.00	60.00	60.00	54.20
15,430 lin. ft. tunnel drainage	1.00	1.50	1.36	1.00	1.00	1.50	1.00	.50	1.50	5.00	3.02
15,430 lin. ft. forms for masonry lining in tunnel	3.00	3.00	3.65	2.00	2.50	3.50	2.50	3.00	3.00	4.00	3.02
46,700 cu. yds. concrete masonry in tunnel	5.25	5.40	5.10	5.25	5.00	5.40	5.25	6.00	5.75	6.00	5.44
2,000 cu. yds. excess concrete masonry in tunnel	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
200 cu. yds. brick masonry in tunnel	20.00	20.00	16.50	15.00	20.00	14.00	15.00	10.00	15.00	25.00	17.05
8,200 cu. yds. dry packing	2.00	2.00	2.45	3.00	2.00	2.60	2.50	2.50	2.50	3.00	2.45
500 lin. ft. drilling holes in rock or masonry	.40	.75	.45	1.00	.50	.60	1.00	.40	.50	.80	.64
1,700 lin. ft. steel pipes for grouting	.20	.25	.35	.50	.25	.90	.50	.13	.30	.40	.38¾
171,500 bbls. Portland cement	1.45	1.56	1.45	1.60	1.50	1.60	1.50	1.50	1.70	1.75	1.56
500 cu. yds. grout for Portland cement	4.00	6.00	7.25	10.00	4.00	9.00	5.00	4.00	6.00	8.00	6.33
36,000 lin. ft. stone boundary walls	.75	1.25	1.10	.80	1.00	.90	.90	1.25	1.35	1.00	1.03
15,000 lin. ft fences and guard-rails	.30	.40	.30	.30	.30	.60	.35	.30	.45	.25	.35½
484,000 lbs. steel for reinforcing concrete	.02	.04	.04	.03	.03	.03	.04	.03	.04	.05	.03½
30,000 lbs. wrought iron, cast iron and steel	.06	.07	.06	.06	.08	.08	.07	.08	.08	.08	.07¼
2,000 lbs. bronze	.80	.75	.70	.50	.50	.70	.60	.75	.75	.75	.68
18,000 lbs. galvanizing	.05	.05	.04	.03	.01	.06	.05	.03	.04	.07	.04
50 months medical and surgical practitioners	150.00	150.00	150.00	150.00	200.00	150.00	200.00	200.00	200.00	125.00	167.50
50 months sanitary services	500.00	300.00	250.00	200.00	400.00	150.00	500.00	150.00	1,000.00	750.00	420.00
Cleaning up (lump sum)	5,000.00	5,000.00	3,500.00	3,000.00	5,000.00	6,000.00	10,000.00	1,000.00	1,000.00	10,000.00	4,950.00
Totals	$2,598,260	$2,600,735	$2,688,879	$2,695,495	$2,710,555	$2,780,880	$2,864,085	$3,121,436	$3,161,555	$3,309,695	

Time: 50 months. Bond required: $525.000.

AQUEDUCT.—New York, N. Y.—Bids were received by the Board of Water Supply, 299 Broadway, New York, on April 6, for Contract 17, a portion of the Newberg Division of the Catskill aqueduct. Bids in detail were submitted by (A) Shnable & Quinn, 103 Park Ave., New York, separate bid; (B) The Dravo Contracting Co., 814 Lewis Block, Pittsburg, Pa., separate bid; (C) The Clement-King Co., 411 Land Title Bldg., Philadelphia, Pa., separate bid; (D) Acme Engineering & Contracting Co., 100 Broadway, New York, separate bid; (D) same, combined with Contract 18; (E) Robert C. Storrie & Co., 31 Nassau St., New York, separate bid; (F) North-Eastern Construction Co., 225 Fifth Ave., New York, separate bid; (G) Henry P. Burgard Co., 275 Lathrop St., Buffalo, N. Y., separate bid; (H) AMERICAN PIPE & CONSTRUCTION CO., 112 North Broad St., Philadelphia, Pa., combined with Contract 18 (awarded contract);*(I) Rodgers & Hagerty, 121 West 125th St., New York, combined with Contract 18; (J) Millard & McDermott, 1116 Pennsylvania Bldg., Philadelphia, Pa., combined with Contract 18:

	(A)	(B)	(C)	(D)	(D*)	(E)	(F)	(G)	(H)	(I)	(J)
24,000 cu. yds. removal of top-soil	$0.30	$0.45	$0.40	$0.40	$0.40	$0.40	$0.35	$0.50	$0.40	$0.45	$0.45
31,000 cu. yds. open-cut excavation, Sta. 1514 to Sta. 1539	.40	.45	.45	.62	.62	.50	.85	.65	.40	.60	.57
21,000 cu. yds. open-cut excavation, Sta. 1539 to Sta. 1555	.50	.80	.70	.70	.70	.65	.88	1.00	1.00	.60	.95
148,000 cu. yds. open-cut excavation, Sta. 1555 to Sta. 1655	.37	.45	.45	.50	.50	.50	.54	.65	.39	.60	.67
46,000 cu. yds. refilling and embanking, Sta. 1514 to Sta. 1539	.30	.25	.37	.45	.45	.40	.30	.40	.30	.28	.39
58,000 cu. yds. refilling and embanking, Sta. 1539 to Sta. 1555	.40	.25	.50	.40	.45	.44	.40	.45	.35	.28	.49
113,000 cu. yds. refilling and embanking, Sta. 1555 to Sta. 1655	.30	.25	.30	.25	.25	.28	.30	.35	.25	.28	.35
16,000 cu. yds. surface dressing and grassing	.50	.40	.50	.45	.45	.70	.40	.45	.40	.70	.45
65,000 cu. yds. concrete masonry for aqueduct in open cut and on embankment	5.03	5.50	5.50	5.50	5.40	5.50	5.60	6.00	5.25	5.40	5.50
6,000 cu. yds. concrete masonry for culverts, retaining walls, etc.	5.70	5.50	6.25	7.25	7.25	7.00	6.50	6.00	7.00	9.00	7.50
200 cu. yds. rubble masonry and paving in mortar	4.80	3.50	5.50	5.00	5.00	3.50	5.00	5.00	4.50	4.00	4.00
90,000 bbls. Portland cement	1.50	1.50	1.60	1.65	1.60	1.70	1.60	1.55	1.50	1.50	1.50
1,000 cu. yds. dry rubble masonry and paving	4.20	3.00	4.50	3.50	3.50	3.00	3.00	3.00	2.50	4.00	3.00
250 cu. yds. crushed stone and gravel	2.40	2.00	2.00	2.50	2.50	2.50	2.00	2.00	2.00	2.25	2.25
200 cu. yds. surfacing macadam roads	4.80	2.00	2.00	4.00	4.00	2.50	3.00	4.00	3.00	1.25	2.25
1 sluice-gate	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1 ton cast-iron pipe and special pipe castings	100.00	100.00	100.00	100.00	100.00	150.00	100.00	100.00	100.00	100.00	100.00
2,000 lin. ft. vitrified pipe	1.20	1.00	1.50	1.00	1.00	1.50	1.00	1.25	1.25	1.00	1.00
100 M. ft. B. M. timber and lumber	42.00	50.00	60.00	60.00	60.00	50.00	60.00	50.00	50.00	40.00	60.00
2,000 lin. ft. stone boundary walls	1.50	1.00	1.25	1.25	1.25	1.40	1.25	1.25	2.00	1.20	1.25
3,000 lin. ft. fences and guard-rails	.30	.30	.30	.30	.30	.40	.30	.35	.40	.30	.25
150,000 lbs. steel for reinforcing concrete	.04¼	.03	.04½	.04½	.04½	.04	.05	.04	.04	.03	.03
9,000 lbs. wrought iron, cast iron and steel	.10	.07	.04	.06	.06	.10	.06	.07	.07	.10	.10
500 lbs. bronze	.60	.80	.60	.60	.60	.75	.50	.50	.50	.75	.50
9,000 lbs. galvanizing	.03	.15	.05	.05	.05	.05	.04	.02	.04	.03	.05
5 testing portions of aqueduct	600.00	500.00	800.00	800.00	800.00	1,000.00	250.00	500.00	500.00	500.00	600.00
1,100 lin. ft. testing portions of aqueduct exceeding 200 ft. in length	2.00	2.00	2.50	2.00	2.00	2.00	2.00	2.00	1.50	2.50	3.00
Supporting the tracks of the Central New England R. R. (lump sum)	7,600.00	1,000.00	4,000.00	2,000.00	2,000.00	2,500.00	2,830.00	2,000.00	5,000.00	3,000.00	1,000.00
Cleaning up (lump sum)	1,280.00	1,000.00	3,000.00	2,500.00	2,500.00	3,500.00	1,500.00	2,500.00	1,000.00	100.00	1,000.00
Totals	$699,255	$722,580	$772,530	$782,635	$774,535	$790,010	$790,580	$838,910	$722,510	$772,267	$808,852

Time: 42 months. Bond required: $260,000.00.

AQUEDUCT.—New York, N. Y.—Bids were received by the Board of Water Supply on April 6 for Contract 18, a portion of the Newburg Division of the Catskill aqueduct. The following itemized bids were submitted by (A) Richard E. Heningham, 1 Madison Ave., New York, separate bid; (B) The Acme Engineering & Contracting Co., 100 Broadway, eNw York, separate bid; (B) same, combined with Contract 17; (C) The Clement-King Co., 411 Land Title Bldg., Philadelphia, Pa., separate bid; (D) Robert C. Storrie & Co., 31 Nassau St., New York, separate bid; (E) The Dravo Contracting Co., 814 Lewis Block, Pittsburg, Pa., separate bid; (F) Henry P. Burgard Co., 275 Lathrop St., Buffalo, N. Y., separate bid; (G) AMERICAN PIPE & CONSTRUCTION CO., 112 North Broad St., Philadelphia, Pa., combined with Contract 17 (awarded contract); (H) Rodgers & Hagerty, 121 West 125th St., New York, combined with Contract 17; (I) Millard & McDermott, 1116 Pennsylvania Bldg., Philadelphia, Pa., combined with Contract 17:

	(A)	(B)	(B*)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
25,000 cu. yds. removal of top-soil	$0.35	$0.40	$0.40	$0.40	$0.40	$0.45	$0.50	$0.40	$0.45	$0.45
140,000 cu. yds. open-cut excavation, Sta. 1655 to Sta. 1734	.35	.50	.50	.40	.52	.45	.60	.38	.70	.59
100,000 cu. yds. open-cut excavation, Sta. 1734 to Sta. 1777 + 50	.65	.80	.80	.67	1.15	1.50	1.50	.80	.70	.67
55,000 cu. yds. open-cut excavation, Sta. 1777 + 50 to Sta. 1811	.65	.60	.60	.75	.70	1.00	1.00	.60	.70	.59
140,000 cu. yds. refilling and embanking, Sta. 1655 to Sta. 1734	.30	.30	.30	.32	.25	.25	.35	.25	.28	.35
37,000 cu. yds. refilling and embanking, Sta. 1734 to Sta. 1777 + 50	.35	.30	.30	.35	.40	.25	.35	.25	.28	.35
38,000 cu. yds. refilling and embanking, Sta. 1777 + 50 to Sta. 1811	.35	.30	.30	.30	.30	.25	.35	.25	.28	.35
20,000 cu. yds. surface dressing and grassing	.35	.45	.45	.50	.50	.40	.45	.40	.70	.45
75,000 cu. yds. concrete masonry for aqueduct in open cut and on embankment	5.75	5.25	5.15	5.75	5.50	5.70	6.50	5.25	5.40	5.50
2,500 cu. yds. concrete masonry for culverts, retaining walls, etc.	6.50	6.75	6.75	6.50	7.00	5.70	7.00	6.50	7.00	6.00
200 cu. yds. rubble masonry and paving in mortar	4.00	5.00	5.00	6.50	3.00	3.50	5.00	4.50	4.00	4.00
100,000 bbls. Portland cement	1.50	1.65	1.65	1.65	1.65	1.50	1.75	1.50	1.50	1.50
1,200 cu. yds. dry rubble masonry and paving	3.00	3.50	3.50	4.50	3.00	3.00	3.00	2.50	4.00	3.00
250 cu. yds. crushed stone and gravel	3.00	2.50	2.50	2.50	2.50	2.00	2.00	2.00	2.25	2.25
600 cu. yds. surfacing macadam roads	3.00	4.00	4.00	2.50	2.50	2.00	4.00	3.00	1.25	2.25
2 sluice-gates	100.00	100.00	100.00	150.00	100.00	100.00	100.00	90.00	100.00	100.00
2 tons cast-iron pipes and special castings	100.00	100.00	100.00	100.00	150.00	100.00	100.00	90.00	100.00	100.00
2,500 lin. ft. vitrified pipe	1.50	1.00	1.00	1.50	1.50	1.00	1.25	1.25	1.00	1.00
100 M. ft. B. M. timber and lumber	55.00	60.00	60.00	60.00	50.00	50.00	50.00	50.00	30.00	60.00
7,500 lin. ft. stone boundary walls	1.10	1.25	1.25	1.50	1.50	1.00	1.25	1.50	1.20	1.25
3,000 lin. ft. fences and guard-rails	.40	.30	.30	.30	.40	.30	.35	.40	.30	.25
120,000 lbs. steel for reinforcing concrete	.04½	.04½	.04½	.04½	.04	.03	.04	.04	.03	.03
2,500 lbs. wrought iron, cast iron and steel	.06	.06	.06	.04	.10	.07	.07	.08	.10	.10
600 lbs. bronze	.50	.60	.60	.60	.75	.80	.50	.50	.75	.50
6 testing portions of aqueduct	750.00	800.00	800.00	900.00	1,000.00	500.00	500.00	500.00	500.00	600.00
1,200 lin. ft. testing portions of aqueduct exceeding 200 ft. in length	3.00	2.00	2.00	3.00	2.00	2.00	2.00	1.50	2.50	3.00
Cleaning up (lump sum)	5,000.00	2,500.00	2,500.00	4,000.00	5,000.00	1,000.00	2,500.00	1,000.00	100.00	1,000.00
Totals	$876,250	$885,135	$877,635	$915,985	$949,425	$965,705	$1,105,375	$836,185	$807,562.50	$892,737.50
Contract 17			774,535					722,510	772,267.50	808,852.50
Totals, Contracts 17 and 18			$1,652,170					$1,558,695	$1,669,830.00	$1,701,590.00

Time: 42 months. Bond required: $260,000.

*BARGE CANAL.—Albany, N. Y.—The itemized prices of the bids received by F. C. Stevens, Supt. Pub. Wks., on March 31, for Barge Canal Contract No. 29, which is for improving the Erie Canal from Station 5130, near Sterling Creek to the Oneida-Herkimer county line, a distance of four miles, were: (A) Engineer's estimate; (B) Acme Engineering & Contracting Co., Schenectady, N. Y.; (C) MacArthur Bros. Co., 11 Pine St., New York; (D) Shanley-Morrissey, Inc., 527 Fifth Ave., New York; (E) Scott Bros., Baldwinsville, N. Y.; (F) MARYLAND DREDGING & CONTRACTING CO., Fidelity Bldg., Baltimore, Md. (awarded contract); (G) Snare & Triest Co., 143 Liberty St., New York; (H) E. M. Graves, Cleveland, Ohio; (I) Lathrop, Shea & Henwood and Transit & Construction Co., Buffalo, N. Y.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Clearing, lump sum	$500.00	$500.00	$500.00	$600.00	$500.00	$500.00	$500.00	$500.00	$500.00
32,000 cu. yds. grubbing	.30	.30	.30	.35	.30	.20	.30	.30	.25
1,181,000 cu. yds. excavation	.30	.285	.27	.32	.27	.22⅓	.29	.25	.26
60 M. ft. B. M. sheeting and bracing	50.00	50.00	50.00	50.00	40.00	50.00	45.00	50.00	55.00
1,000 lin. ft. round timber bracing	.20	.20	.20	.20	.20	.20	.20	.20	.20
309,000 cu. yds. forming embankment	.15	.10	.15	.15	.125	.09	.13	.05	.10
2,370 cu. yds. lining	1.50	1.50	1.50	1.50	1.50	1.00	1.00	1.50	1.50
9 M. ft. B. M. sawed lumber (yellow pine or Douglas fir)	55.00	55.00	55.00	55.00	55.00	55.00	45.00	55.00	60.00
8 M. ft. B. M. white oak lumber in miter sills and gates	100.00	100.00	100.00	100.00	100.00	100.00	85.00	100.00	120.00
85,140 lin. ft. foundation piles	.30	.36	.30	.25	.30	.25	.25	.30	.15
43 M. ft. B. M. wooden sheet piling	50.00	60.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
1,000 sq. ft. steel sheet piling	1.75	1.75	1.75	1.75	1.60	1.75	1.50	1.75	1.75
32,500 cu. yds. second-class concrete	7.00	6.90	6.40	6.25	6.30	6.50	7.00	6.50	6.75
175 cu. yds. second-class reinforced concrete	......	12.00	12.00	13.35	12.00	12.00	12.00	12.00	12.75
4 cu. yds. first-class masonry coping	30.00	30.00	30.00	36.00	35.00	30.00	30.00	30.00	35.00
32,000 cu. yds. wash wall	1.90	2.28	2.00	2.25	2.10	2.10	1.90	2.28	2.25
2,030 sq. yds. first-class stone paving	2.25	2.70	2.25	2.70	2.35	2.25	2.00	2.25	2.50
900 sq. yds. third-class stone paving	2.00	2.40	2.00	2.40	2.10	2.00	1.80	2.00	2.25
210 cu. yds. first-class riprap	2.75	3.30	2.75	3.30	2.85	2.75	2.70	2.75	1.25
1,530 cu. yds. second-class riprap	2.50	3.00	2.50	3.00	2.60	2.50	2.50	2.50	2.75
600 cu. yds. third-class riprap	2.25	2.70	2.25	2.70	2.35	2.25	2.25	2.25	2.50
5,900 cu. yds. fourth-class riprap	2.00	2.40	2.00	2.40	2.20	2.10	2.00	2.00	2.25
31 lin. ft. 9" vitrified pipe, laid	.50	.50	.50	.50	.50	.50	.50	.50	.60
75 lin. ft. 30" vitrified pipe, laid	2.50	2.50	2.50	2.50	2.50	2.50	2.00	2.50	3.00
235,000 lbs. structural steel	.045	.045	.045	.045	.045	.04	.04	.045	.045
90,400 lbs. metal reinforcement	.035	.035	.035	.035	.0325	.03	.03	.035	.035
13,600 lbs. iron castings, plain	.035	.035	.035	.035	.035	.0325	.03	.035	.035
8,500 lbs. iron castings, machined	.06	.06	.06	.06	.06	.06	.05	.06	.06
250,000 lbs. metal in lock gates	.06	.06	.06	.06	.06	.06	.05	.06	.06
78,000 lbs. metal in buffer beams	.06	.06	.06	.06	.06	.06	.045	.06	.06
35,000 lbs. metal in lock valves	.10	.10	.10	.10	.10	.10	.09	.10	.10
560 sq. yds. wooden pavement	2.75	2.75	2.75	2.75	2.75	2.75	2.00	2.75	3.00
2,800 lin. ft. wooden fence	.20	.20	.20	.20	.20	.20	.20	.20	.24
For maintaining highway traffic (lump sum)	1,000.00	1,000.00	1,000.00	1,000.00	800.00	1,000.00	1,000.00	1,000.00	1,200.00
1 storehouse (lump sum)	800.00	800.00	800.00	960.00	800.00	800.00	700.00	800.00	950.00
1 office building (lump sum)	250.00	250.00	250.00	300.00	250.00	250.00	300.00	250.00	300.00
Cofferdams, pumping, bailing and draining (lump sum)	7,500.00	9,000.00	7,500.00	7,500.00	9,000.00	7,500.00	7,000.00	7,500.00	9,000.00
Totals	$812,350	$799,914	$760,620	$825,492	$754,896	$683,714	$780,662	$718,310	$744,119

TRADE PUBLICATIONS.

(Continued from page 134.)

WATERPROOFING.—The Barber Asphalt Paving Co., New York. 7 × 9 ins.; pp. 39; illustrated.

The title of the pamphlet, "Waterproofing by the Positive Seal Method" is an indication of its contents. This method involves the application to the side of the structure nearest the water of a positive seal, composed according to this company, preferably of alternate laps of asphalt and felt of fabric products. A number of specimen specifications are included.

CONCRETE RESIDENCES.—Universal Portland Cement Co., Chicago, Ill. 6 × 9 ins.; pp. 63; illustrated.

Some months ago the Universal Portland Cement Co. initiated a competition for the design of a suburban concrete house to cost approximately $8,000 without the ground. This book contains the plans, perspectives and descriptions of 19 such houses which were either awarded prizes or mentions in this competition. The styles in the design are sufficiently variable to be of considerable value to any one interested in such construction either with a view to personal building or from the point of view of the architect and builder. This book itself is exceedingly attractive.

REINFORCED-CONCRETE DAM.—The Hydraulic Properties Co., 144 Westminster St., Providence, R. I. 11 × 7 ins.; pp. 18; illustrated.

The Ransom Hollow Dam, described in this booklet, is a patented reinforced-concrete structure, built on a gravity section with a slab deck and vertical buttresses in a plane diagonal to the line of dam and meeting in two at points near the face.

CONCRETE MIXER.—Standard Scale & Supply Co., Pittsburg and Chicago. Paper; 6 × 9 ins.; pp. 4; illustrated.

The Eclipse mixer is of the batch type, with a drum revolving on a horizontal axis, and having special charging and discharging equipment. It is mounted on a low truck, with discharge chute at the rear end of the truck. The machine is made in different sizes, the capacity ranging from 10 to 36 cu. yds. of concrete per hour.

AIR AND GAS COMPRESSORS.—Ingersoll-Rand Co., 11 Broadway, New York, N. Y. Paper; 6 × 9 ins.; pp. 64; illustrated.

This is a detailed descriptive catalog on the duplex steam-driven type of compressor, with a sub-base extending under the entire machine. It is built either simple or compound, with duplex or two-stage air cylinders, and for operation with or without condensing. The various parts are severally illustrated and described, and several pages are devoted to the features and advantages of the duplex system.

BAND SAW.—Allis-Chalmers Co., Milwaukee, Wis. Paper; 8 × 10½ ins.; pp. 4; illustrated.

This is a re-sawing machine for manufacturing lumber out of slabs and small logs at sawmills. The saw is horizontal, passing over two 6-ft. sheaves, and its lower part traverses a feed table which is raised or lowered for feeding pieces up to 12 ins. thick. The depth of cut can be regulated to 1-32-in.

CONCRETE MIXER.—The T. L. Smith Co., Chicago, Ill. 6 × 9 ins.; pp. 47; illustrated.

This company, the successor to The Contractors' Supply & Equipment Co., is the maker of the well-known Smith concrete mixer, to a description of which this catalog is mainly devoted. In addition to this mixer, space is given to water measurers, batch hopper, side loaders, elevators and other devices for simplifying and perfecting the mixing of concrete.

ELECTRIC INTERLOCKING AND SIGNALING DEVICES.—Union Switch & Signal Co., Swissvale, Pa. Cloth; 6 × 9 ins.; pp. 197; illustrated.

This is the company's 1909 illustrated price-list of those block-signaling and interlocking appliances which belong only to all-electric working, including the interlocking machines (lever and button), switch operating mechanisms, high and dwarf signals with operating mechanisms, circuit controllers, etc. The drawings by which all parts are referenced are models in the execution of drawing and numbering.

STEEL SHEET PILING.—Geo. W. Jackson, Inc., 175 West Jackson Blvd., Chicago, Ill. Paper; 10 × 7 ins.; illustrated.

An album of views showing applications of the Jackson interlocking steel sheeting, with some explanatory text.

DYNAMITE AND BLASTING SUPPLIES.—National Powder Co., 353 Fifth Ave., New York City.

The pamphlet describes National gelatine, ammonia and woodpulp dynamite, special blasting powder made of nitroglycerine with black powder, and blasting accessories as fuses, batteries, etc. For the latter, prices are given.

STEAM PIPING.—Gesellschaft für Hochdruck-Rohrleitungen, Berlin, Germany. Boards, 7¾ × 10¼ ins.; pp. 135 + 113; illustrated. (Julius Springer, Berlin, 10 M.)

Departing from the usual catalog practice, a German company advertises its pipe and fittings by a descriptive discussion of steam piping, wherein attention is called to the requirements which the several devices are designed to meet. The book above listed contains in its second half a size and price-list, and the combined book is sold for 10 marks; still it is in substance nothing more than a trade catalog.

PORTLAND CEMENT.—Lawrence Cement Co., 1 Broadway, New York City. Paper; 3½ × 6 ins.; pp. 20; illustrated.

An ornate booklet describes the new Central R. R. of New Jersey ferry terminal at Liberty St., New York, where Dragon cement was used. Some of the concrete work is interesting.

HEAVY MILLING MACHINES.—Niles-Bement-Pond Co., New York, N. Y. Paper; 9 × 12 ins.; pp. 54; illustrated.

Many of these machines are for a class of work for which planing machines have formerly been used, and for the large milling cutters the cost has been reduced by inserting blades of high-speed steel in a body of low-carbon steel. Some of the machines have four or five cutter spindles. A special type of machine is the end milling machine or rotary planer, having cutter heads from 36 ins. to 10 ft. in diameter, for structural work, armor plate, etc. Both horizontal and vertical machines are described.

For other Proposal Advertisements see pages 47, 48, 52, 54, of Advertisements and Construction News page 136.

FENCE FOR THE BOSTON EMBANKMENT.

THE COMMONWEALTH OF MASSACHUSETTS.
CHARLES RIVER BASIN COMMISSION

Sealed proposals will be received at the office of the Charles River Basin Commission, 367 Boylston Street, Boston, Mass., until 2.30 o'clock p. m., of Monday, May 10, 1909, for furnishing and erecting an iron fence along the basin wall of the Boston embankment, from the Cambridge Bridge to Charlesgate West in the city of Boston. About 7,000 linear feet of fence will be required. Pamphlets containing further information for bidders, forms of proposal, contract and specifications will be mailed to contractors who apply to the Chief Engineer, or may be obtained at his office, 367 Boylston Street, Boston, where also plans may be seen. It is expected that these pamphlets will be ready about Monday, April 26th. The printed form must be used in making proposals. The Commission reserves the right to reject any or all proposals and to accept the proposal deemed best for the Commonwealth. HENRY D. YERXA, Chairman, JOSHUA B. HOLDEN, EDGAR R. CHAMPLIN, Charles River Basin Commission; HIRAM A. MILLER, Chief Engineer; WILLIAM S. YOUNGMAN, Secretary.

PAVING AND CURBING.

Kingston, Luzerne County, Pa.

Sealed proposals will be received by the Secretary of the Borough of Kingston, Luzerne County, Pennsylvania, until 5 o'clock P. M., Monday, May 3d, 1909, for ten thousand lineal feet, more or less, Wainswright concrete curb and for fifteen thousand square yards, more or less, of street paving.

Bids will be received on Warren Bros.' Bitulithic pavement, for creosoted wood block and brick, all to be laid on a six-inch concrete foundation.

Plans and specifications can be seen and forms of proposals obtained of the undersigned or the Engineers, Young & Wintermute, 414 Second National Bank Bldg., Wilkes-Barre, Pa.

All bids to be accompanied by certified check on either a Wilkes-Barre or Kingston Bank, payable to E. M. Rosser, Borough Treasurer, for the sum of One Thousand Dollars.

The Council reserves the right to reject any or all bids.

By order of the Council.

W. J. WILLIAMS,
Borough Secretary.

MACADAM ROAD.

Roselle Park, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Roselle Park, N. J., until 8 o'clock p. m., Friday, May 7, 1909, at the Borough Hall, for the construction of a macadam roadway on Walnut Street, from Westfield Avenue to Grant Avenue.

Approximate quantities wanted are as follows:

6" macadam, 1,300 sq. yds.
Excavation, 275 cu. yds.
Underdrains, 100 lin. ft.
Manhole heads reset, 2.

Contractors are invited to submit alternate proposals for the construction of said road with an asphaltic or bituminous binder, or other form of dust-proof construction.

Plans, specifications and cross sections may be seen, and forms of proposal obtained at the office of the Borough Engineer, 405 Chestnut St., Roselle Park, N. J.

Each proposal must be accompanied by a certified check for $50.00 to the order of the treasurer of the Borough.

The right is reserved to reject any or all bids.

A. M. WOODRUFF,
Borough Clerk.

J. WALLACE HIGGINS,
Borough Engineer.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of the Bismarck Avenue Sewer, Contract No. 34, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, April 30, 1909.

The work will consist mainly of building about 1,000 feet of 20-in. sewer, 13 ft. deep.

Plans and specifications may be seen at the office of the Commissioners.

Sealed bids should be endorsed "Proposal for Bismarck Ave. Sewer" and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of the Oak Street Sewer, Contract No. 32, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, April 30th, 1909.

The work will consist mainly of building about 960 feet of 54" sewer, about 22 feet deep, and including 400 cu. yds. of concrete.

Plans and specifications may be seen at the office of the Commissioners.

Sealed bids should be endorsed "Proposals for Oak Street Sewer" and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of the Broadway Sewer, Contract No. 33, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, April 30th, 1909.

The work will consist mainly of building about 1,400 feet of 36" and about 500 feet of 24" sewer in trench about 12 feet deep and including 375 cu. yds. of concrete.

Plans and specifications may be seen at the offce of the Commissioners.

Sealed bids should be endorsed "Proposal for Broadway Sewer" and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERS OF LOUISVILLE, KY.
Incorporated.

Sealed proposals for the construction of a sewer known as Section "E" of the Beargrass Intercepting Sewer, Contract No. 35 of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, May 7, 1909.

The work will consist mainly of building a concrete sewer about 3,000 feet long in trench from 15 ft. to [illegible] ft. deep, sizes 39 inches and 48 inch[illegible] diameter, and including about 95[illegible] yds. of concrete.

Plans and specifications [illegible] be seen at the office of the Commis[illegible]rs and at the office of Harrison P. [illegible]y, Consulting Engineer, 14 Beacon [illegible] Boston, Mass.

Sealed bids should be end[illegible] "Proposals for Section "E" Bea[illegible]s Intercepting Sewer" and addres[illegible] to the Commissioners of Sewerage, [illegible]uitable Building, Louisville, Ky. Eac[illegible] must be accompanied by a certified [illegible]k for at least seven per cent. (7%) o[illegible] total amount of the bid, or a "Bidd[illegible] Bond" as described in the form of pr[illegible]al.

W. C. NONES, Ch[illegible]an.
CHAS. P. WEAVER, Secy. & [illegible]as.
J. B. F. BREED, Chief Engin[illegible]

Situations Wanted

Civil Engineers.

RESIDENT ENGINEER, Assoc. M. Am. Soc. C. E., seven years' experience, railroad construction, hydraulic and general engineering. Good draftsman. Address "D. A. 15," Engineering News, New York. 15-12t

Superintendents, Misc., etc.

WANTED—Position as superintendent by man capable of organizing and pushing large contract work of following character: Steam shovel work, crusher outfits and quarry work, concrete, reinforced or plain and sewer work. Thoroughly competent to organize and handle work located at some distance from head office. Up-to-date man in making good where it can be done. Well posted on working of modern machinery in each class of work. Twenty years' experience. Will go where energy and ability will be appreciated in salary. Address "L. A. 16," Engineering News, New York. 16-5t

Situations Open

DRAFTSMAN wanted at once, by concrete specialist. Man with architectural experience preferred. State salary. Address, with reference, CHAS. D. WATSON, Engr., 620 Kirk Block, Syracuse, N. Y. 16-1t

THOROUGHLY COMPETENT Mechanical Engineer, Superintendent and Designer, with practical experience in sugar machinery line and machines for tropical plantations; must be active and able, and know how to handle men. A fine position for the right man. Send references as to experience, character, reliability, etc. Address "M. A. 16," Engineering News, New York. 16-2t

Miscellaneous Wants

AN ENGINEER, with four years' experience and best references in the Pacific Northwest, is desirous of communicating with well known manufacturers of staple commodities with the idea of representing them in that district; principally structural steel, concrete and reinforced construction. Address "I. A. 16," Engineering News, New York. 16-3t

WILL PAY $2.00 for 1 copy Engineering News of June 15, 1874, at that time called Engineer, Architect and Surveyor, and 25c. for index to Vol. 51, and 10 cents each for Jan. 2, 08, May 21, 08, Nov. 19 and 26, 1908, and Jan. 7, 1909. Cost of mailing allowed in addition. Address "A. R. T.," care of Engineering News, New York. 16tf

WANTED—Four 6-yd. center dump; four 6-yd. side dump; standard gage; second hand; state price, condition and make. E. H. McKNIGHT, Bowling Green, O. 16-1t

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is more frequently consulted for
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MISCELLANEOUS WANTS
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than any other Engineering Journal in the United States.